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Volume 22
Number 250 *Post-War developments in the marketing of butter*
Article 1

February 1939

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Nicholls, William H. (1939) "Post-War developments in the marketing of butter," *Research Bulletin (Iowa Agriculture and Home Economics Experiment Station)*: Vol. 22 : No. 250 , Article 1.
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February, 1939 Research Bulletin 250

Post-War Developments in the Marketing of Butter

BY WILLIAM H. NICHOLLS

AGRICULTURAL EXPERIMENT STATION
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CONTENTS

Post-War Developments in the Marketing of Butter[1]

By William H. Nicholls*

In spite of the many important changes which have taken place in the marketing of manufactured dairy products since the World War, no analysis which takes adequate account of these changes is yet available. While post-war text books on agricultural marketing have treated the marketing of manufactured dairy products in a very broad manner, their major emphasis has been on cooperation, with almost complete oversight of the marked and increasing importance of very large private business units in the distribution of the several dairy products and the changes in marketing channels under way. It is the aim of this study to attempt partially to fill this gap by a reconsideration of the marketing of butter with special attention to changes in its channels of distribution, concentration in the butter industry, and the various supplementary and complementary relationships involved in the recent increased diversification of dairy products distributed.

It has usually been assumed in the past that individual companies are of no consequence, only general tendencies or principles being of importance. With the recent development of the theory of imperfect competition, however, it has frequently seemed desirable to discuss individual companies, since it is recognized that each has more or less control, through consumers' preferences developed by branding and advertising, over a segment of the consuming population, although this control may be relatively small if the possibilities of substitution are many. Butter, for example, is not a homogeneous commodity but is rather "Cloverbloom," "Brookfield," "Blue Valley," "Land O'Lakes," etc.—a *series* of commodities which, because of the development of consumers' preferences for each, are not perfect substitutes even if of the same basic grade and quality. For this reason, the various business units will here be examined in their true light instead of merely as "butter manufacturers" or "centralizers" or some other vague and uninteresting classification.

Furthermore, all sources used herein are available to the general public and are in no sense of a confidential nature. The ordinary farmer, creamery operator, or layman, however, has not the time or inclination to go to such original sources in order to get a better and more accurate knowledge of the butter trade. Conservation of research resources, therefore, seems to justify the use of

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*For the guidance which led him originally to undertake research in this subject, the writer is deeply indebted to Dr. John D. Black of Harvard University. He gratefully acknowledges the helpful criticisms of the manuscript by his colleagues at Iowa State College, especially those by C. A. Iverson, M. Mortensen, and A. W. Rudnick; A. D. Oderkirk, Frank Robotka, T. W. Schultz and Geoffrey Shepherd.

[1]Project 595 of the Iowa Agricultural Experiment Station.

company names, without which this particular type of analysis is much less real and intelligible. Finally, when companies assume the size of those discussed in this bulletin, they should acquire a certain responsibility of being willingly subject individually to public scrutiny.

There is, of course, a danger that such an attitude will cause writings to deteriorate into mere company histories, such writings at the same time ignoring the broad principles or tendencies which are the goal of scientific writing. It is hoped that the present study is a proper combination of the two.

BUTTER MARKETING AT THE END OF THE WAR: 1918-1920

In 1918 the two chief marketing channels for butter were: 1. creamery—wholesale receiver—jobber—retailer—consumer, and 2. creamery (usually centralizer or packer)—exclusive sales agency—retailer—consumer (65a). The former channel was already undergoing those alterations which were tending toward a shortening of the distributive process, for many wholesalers were also beginning to perform the jobbing function, bringing about one less middleman. As early as 1913 Frank G. Urner (69) had pointed out that "the lines of demarkation between wholesale receivers and jobbers have become indefinite and are tending toward obliteration in respect to all goods so graded and packed at primary points as to satisfy the demands of dealers nearer to the point of consumption." While Urner was discussing farm products in general, his words are none the less applicable to butter: "Jobbers, in the effort to obtain supplies more cheaply, have reached out to primary sources of supply, over the head of wholesale receivers; and the latter, in order to maintain their hold upon supplies, have reached out over the heads of jobbers for outlets to retailers, so that the two classes of trade, formerly distinct, have tended toward a unification." Urner continued, pointing out that while all the various functions of distribution clear through to the consumer might be combined under a central management, the wholesale receipt, classification (jobbing) and retail functions must remain as distinct *departments* of such enterprises.

That the wholesaler-jobber was none too secure was also apparent by 1913, for the chain store had already begun to challenge the wholesaler (18) as well as the independent retailer as its ever-stronger policy of integration and direct purchase from the manufacturer got under way.[2]

[2]As early as 1906 the New York Produce Review carried a full-page advertisement (52-a) for the Great A. & P. Tea Co. which read: "We want your butter. With 250 retail stores in the U. S. and having a very large outlet for butter direct to consumers, we respectfully solicit your shipments to this market . . . " In 1910 a regular buyer was appointed by the A. & P. to buy "1500-2000 tubs of butter" on the New York market each week for all its eastern stores (52-b).

Still earlier the Review carried an advertisement (52-c) for butter by James Butler, "wholesale and retail grocer and commission merchant. 128 retail stores in greater New York."

Such giants-to-be as the Great Atlantic and Pacific Tea Co. (founded in 1859) and the Kroger Grocer and Baking Co. (founded in 1883), however, were still "small for their age" with perhaps 500 and 160 stores, respectively, in 1913. And by 1918 the sudden appearance of adolescence had brought these chains and a number of other future goliaths into far greater prominence as increasingly rapid growth got under way. Between 1915 and 1924 the A. and P. chain increased from 650 to 9,303 stores and Kroger from 193 to 1,874 stores, while a number of other chains grew with similar gusto. Because this development did not begin on such a large scale until the War, and since it continued throughout most of the post-war prosperity, it seems proper, despite earlier recognition of its probable effects on distribution (18),[3] to count the rise of chain stores to national significance as an important development of the post-war period (after 1918). This seems especially justified since at the end of the War the chain stores were still using wholesale receivers and centralizer sales agencies (the "regular" channels) far more than in later years (66-a).

The thousands of small local (largely cooperative) creameries throughout the dairy states still used the wholesaler-jobber route. To be sure, a beginning toward federation of cooperatives had got under way, with a few hundred creameries selling through the Minnesota Cooperative Dairies Association,[4] a joint stock organization (formed in 1907), which used regular butter dealers to market its product until 1915, when it set up its own distributing house in New York City, thereby joining the group of more integrated distributors. This organization, however, was not of much significance except as a forerunner of bigger things to come along the lines of federation, for by 1920 it was selling only 4.5 million pounds of butter (19-a). Similarly, Challenge Cream and Butter Association (established in 1910) in California, although it had by the end of the War indicated healthy growth, was selling only 3.3 million pounds in 1918; by 1920 it was handling 4.5 million pounds (19-b). The development of large-scale regional cooperatives may, therefore, also be considered largely a post-war development, local creameries as a whole, both cooperative and proprietary, using the same lengthy channels of distribution in 1918.

Aside from the relatively small amount of butter moving directly to the retailer or the consumer through the sales agencies of federated cooperatives or chain stores, the great bulk of the butter moving

[3]E. g., Warber (74): "The distinctive characteristic of the chain store system is the fact that the purchasing of all supplies is centralized; and thus 'the system' has the advantage[s] of having its supplies selected by expert judges of quality and reduced prices for large bulk purchases." In Philadelphia the chains were getting "extras at an average of 2 cents below the prevailing prices paid by other classes of retailers."

[4]Not to be confused with the predecessor of Land O'Lakes, the Minnesota Cooperative Creameries Association, established in 1921.

TABLE 1. PRINCIPAL BUTTER-MARKETING COMPANIES, NUMBER OF POUNDS SOLD, AND PERCENT OF TOTAL CREAMERY BUTTER PRODUCED IN THE UNITED STATES, 1918.*

Company	Pounds (000)	Percent of U. S. production
Swift & Co.	66,621	8.2
Beatrice Creamery Co.	61,335	7.5
Armour & Co.	51,016	6.2
Blue Valley Creamery Co.	26,484	3.2
Wilson & Co.	21,565	2.6
Hunter, Walton, & Co.	20,276	2.5
Cudahy Packing Co.	16,760	2.1
Total	264,357	32.3
Total U. S. creamery butter	818,175	100.0

*Fed. trade commission. Milk and Milk Products. 73. 1921.

through the integrated route was that of the great centralizers and packers. The situation in 1918 is shown in table 1 as compiled by the federal trade commission (8). Of the seven companies listed as the nation's largest, four were meat packers, two centralizers and one a butter dealer (Hunter, Walton and Co.). All these companies used their own distribution facilities to some extent, at least, from the factory through to the retailer except Hunter, Walton and Co., which is more properly classified as a large wholesaler unit in the less direct route already discussed.

In 1902 "Swift was just beginning to handle dairy and poultry products" (45-a)[5]. By 1911 it had adopted its now-famous "Brookfield" brand and had first begun packing its butter in 1-pound cartons. "By 1917 about half of its volume was sold in that way" (45-b). In 1918 Swift's method of assembling produce was "substantially different from that employed by the other packers. We rely largely on our own country plants, which collect, prepare, and ship these products; the other packers buy more heavily from other dealers" (46)[6]. About one-half of the butter handled by Swift was purchased from other manufacturers in that year, however. In 1918 Swift and Co. already had 38 creameries operating on the centralizer principle, chiefly in regions where dairying was only a sideline rather than the chief farm enterprise.

Armour and Co. had been distributing produce during about the same period but purchased a relatively greater proportion of its butter and manufactured correspondingly less than Swift. In 1918 Armour had 12 creameries. "Prior to 1914, the [produce] line did

[5]However, in 1900 the New York Produce Review (52-d) had already editorialized that "several of the big meat packing houses who have of late years undertaken the distribution of butter, eggs, and poultry, are able to forward these articles under a false classification at a much lower freight rate than charged to the smaller operators." The Review suggested that the trade bring it before the Interstate Commerce Commission for correction. In 1900 Swift had 5 produce houses, the first two of which were established in 1897 (41-a).

[6]Swift's claim here was that it handled only 5.9 percent of United States butter but it included farm butter in its calculation.

not hold such an important place" in the Cudahy Packing Co.'s activities (39-a), but the War period brought rapid expansion for both Cudahy and the fourth member of the meat-packing "Big Four," Wilson and Co. In 1918 Cudahy had three plants of its own, while Wilson reported none, apparently buying all the butter it distributed at that time (41-b).

Not only butter but cheese, eggs and poultry were included in the packers' produce line, business in these commodities developing in order to take advantage of the economies in assembling from farmers, economies in manufacture and preparation for market, economies in distribution through the elaborate system of branch houses, refrigerator cars and car routes, and perhaps to deal in, if not to get control of, the leading substitutes for meat products and oleomargarine,[7] as charged by the federal trade commission (41) in 1919. In spite of the commission's condemnation of the packer's produce activities, so rapidly expanded during the War, the Packers' Consent Decree of 1920, while forcing the packers to give up such "unrelated" lines as wholesale groceries and fresh or canned fish, left their operations in butter, cheese, eggs, poultry and oleomargarine undisturbed, although the distribution of fresh milk and cream was specifically forbidden.

The Beatrice and Blue Valley companies, in contrast with the multifarious activities of the meat packers, were solely in the dairy-products business. By 1900 Beatrice was advertising itself (52-e) as "the world's largest creamery," producing about 9 million pounds of butter a year.[8] By 1920 Beatrice had 16 creameries with 3 cold storage warehouses and distributing agencies throughout the East and South. The War saw rapid expansion of Beatrice's butter sales from 20 million pounds in 1913 to 63 million pounds in 1919 (49-a). The rise of this company from a beginning in 1891 was characterized by expansion, to a considerable degree, through acquisition of a number of other (for their day) very large creamery companies throughout the West Central states.

The Blue Valley Creamery Co. also was operating close to 20 creameries in 1920. The history of this company (5) had been one of constant effort to build up the sales to retailers of the Blue Valley package butter. So successful had this effort been that "for many years . . not a single pound of the company's butter [of the required grade] . . . has ever been sold in any way but in the standard blue and yellow . . . package . . . The great bulk of these sales

[7]From 1873 on, the manufacture of oleomargarine increased rapidly in the United States, largely because of the early activities of the meat packers in their utilization of the edible fat by-products from their meat operations. The Country Gentleman of 1900 carried stories of the suit of New York State vs. Armour and Co. for $500,000 for violation of the state's oleomargarine law. The state lost the suit because of its inability to obtain records from the railways as to the quantities of oleomargarine shipped in.

[8]In 1905 its output was 34 million pounds, 7 million of which was renovated. By this time the company had six large creameries and five sales agencies and distributed direct to retailers in the East and South (52-f).

have been made from the company's own refrigerated automobile trucks direct to the retailers . . . Some package butter is also sold to certain selected distributors in smaller cities where no company organization is maintained." Blue Valley was unique among the very large centralizing creameries in its method of procuring cream from its producers. While Beatrice and most other centralizers had always used cream-assembly points in many villages and towns throughout the Midwest, which in turn forwarded the cream to the factories, Blue Valley did not operate a single cream station. Each farmer shipped his cream *direct* to Blue Valley, and the company dealt directly with each farmer. Such a method of assembly was remarkable for a company so large.

The year 1918 was the first that total butter produced in United States creameries exceeded the total produced on farms. In 1917 only 45.6 percent of the nation's butter was produced in creameries. In 1918 this figure was 53.4 percent.[9] In the post-war period farm butter was to fall rapidly from its once dominant position and packaged butter similarly to attain increasing importance relative to tub butter, which is sold to the consumer in bulk. In 1917, however, although the individual package was commonly used, "in New York City, Boston, Buffalo, Cleveland, Charleston and New Orleans, the practice of retailing butter from tubs [was] still quite prevalent" (66-b). The United States Department of Agriculture in 1918 first undertook quality standardization by establishing a uniform basis for grading butter. At that time, standards were used in all of the important receiving markets but were variously interpreted both within a given market and between markets. The Department adopted standards which followed closely the established trade practice but made them more definite and applied them more or less uniformly in all markets through Government graders (58). It should be noted, however, that federal grading was instituted only in the central markets at that time. The trend toward grading at point of production had not yet begun.

In 1914 the Elgin Board of Trade, so long an important basis for butter prices, was at last "enjoined from publishing its price as official, and in November, 1917, they discontinued their meetings . . ." This Board was "to all intents and purposes a Chicago trading organization. A few traders from this city [Chicago] have been in the habit of going out to Elgin each Saturday for a short session at which they went through the form of a 'call.' The amount thus sold has averaged only about 50 tubs per week . . . " (64-a).[10] In spite of the shortcomings of this call-board as a legitimate place for registering the true value of butter, it is surprising to note that at the

[9]Appendix Table I. (76). However, in the leading butter-producing states, this shift had taken place several decades earlier.

[10]Nourse (64-b) later remarked: " . . . the only reason that Chicago dealers should keep up the absurd practice of going out there each Saturday to go through the forms of a 'call' would seem to be because it gives them some control over prices."

time it was forced to cease operations, 80 percent of Wisconsin creameries were using Elgin as a basis of price, as compared with 16 percent using Chicago and 4 percent New York (65-b).[11] This is an interesting example of how long once-important economic institutions may continue to survive after they have outlived their (legitimate) usefulness. The continuation of the Plymouth cheese exchanges to the present time seems a parallel case, although the alternative price mechanism is less evident than that at the time of the Elgin demise.

SUMMARY

The marketing picture of 1918-20 should probably be summarized at this point. The most important marketing channel included a wholesaler and a jobber, but economic forces were already at work tending to obliterate the lines between these two marketing agencies. Large chain-store organizations were just beginning to assume a position of real significance, and since they had not yet reached a size which made the development of their own integrated agencies from the creamery to the consumer economically feasible, they still depended largely on the terminal-market wholesalers and centralizer sales agencies for their supplies. Cooperation was still chiefly confined to small local creameries, and, although there were a few "straws in the wind," large-scale federated sales agencies were not yet of great importance.

The second most important marketing channel was a manufacturer-direct-to-retailer movement, which had already been used for some time by the four leading meat-packers and two large centralizer organizations, which taken together marketed just under 30 percent of the nation's butter. The Packers' Consent Decree of 1920 failed to forbid the meat-packers' continued participation in the produce line, and their elaborate distributive facilities were well-prepared to assure them of continued importance in the marketing of butter.

The volume of farm-made butter, for the country as a whole, had just fallen behind the volume of creamery butter for the first time, although the transition had taken place a number of years before in the most important dairy states. Butter still reached the consumer, to an important extent, unpackaged, while federal grading was only just being established in the central markets. And finally, the Elgin Board of Trade—so long used as a basis of settlement for butter shipments—having outlived its legitimate usefulness, was given a none-too-lamented burial.

DEVELOPMENTS OF 1921-1927

The immediate post-war period saw a steadily increasing emphasis on high quality butter. The 1926 Dairy Produce Yearbook (75), in reviewing that year, had this to say (italics mine): " . . .

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[11]This quotation was also used throughout Illinois, Iowa, Indiana and Ohio.

perhaps the outstanding development [of 1926] is to be found in the matter of butter quality . . . *Cooperative creameries . . . have been forcing this issue with apparent success.* With greater supplies of butter scoring in the nineties, the consumer is loath to accept a return to lower qualities when supplies of fancy run short." Not only was the consumer becoming more discriminating about the quality of butter which he used—in the face of increasing emphasis on quality on the part of the trade—but his general economic condition was such as to make his demand for the higher quality butter (at a higher price) "effective." The spread between 92 and 90-score butter was reported to be greater than ever before, and Land O'Lakes raised the percentage of its butter scoring 93 or better from 32.4 to 61.0 percent in that year (29). From its establishment, Land O'Lakes based its whole merchandising campaign on "quality appeal." Less conspicuous than the large federated cooperatives but highly significant in the development of high quality butter during this period was the long-time program of quality improvement being carried on by the state colleges in several of the leading butter-producing states.[12]

As early as 1924, when Land O'Lakes Creameries, just getting under way, was selling 33 million pounds of butter,[13] most of which reached the retailer chiefly in tubs rather than in prints, the cooperative started its branding policy, in spite of the objections of its wholesale distributors, who were accustomed to erasing the manufacturer's mark and substituting their own (52-g). Furthermore, Land O'Lakes' merchandising program from the beginning devoted much of its advertising space to indicate the "Hidden Losses" (52-h), due to loss of time, very small sales and waste, in the sale of bulk—as compared with packaged—butter, and sought to hasten the shift to butter sold in a form which is readily identifiable by the final consumer, and hence more susceptible to the development of the consumer's preference for the "Land O'Lakes" name. Year by year. under such a campaign, Land O'Lakes increased the proportion of its product sold in prints. Similarly, Swift was selling two-thirds of its butter in packages in 1926, as compared with only one-half in 1917 (45-c). As late as 1930, however, it was estimated by the trade association of centralized butter manufacturers (1)[14] that

[12]In Iowa, e. g., the Department of Dairy Industry of the state college has for many years conducted a quality-improvement program through its own extension workers and a self-supporting quality-control laboratory. This program was no doubt an important factor in Iowa's success in winning banners for the highest quality butter submitted in the annual competition held by the National Butter Makers' Association, an honor won by Iowa butter in 5 out of 8 years 1921-28 and in 1934.

[13]For the sources of all data presented in this study concerning number of creameries, number of produce houses, number of stores and volume of butter sold, the reader is referred to appendix tables III-VI, which present these data by years for centralizers, chain stores, cooperatives and meat-packers, respectively, with the source indicated for each figure. Frequent reference to these tables may also enable the reader to follow better from section to section the thread of continuity concerning each type of marketing business unit.

[14]American Ass'n. of Creamery Butter Manufacturers. The Association took this occasion to criticize Land O'Lakes for casting reflections on tub butter.

"500 million pounds of butter are marketed per annum to the consumer . . . [from tubs] . . . in the eastern heavy-consuming states," not quite a third of all creamery butter produced that year.

By 1926 Land O'Lakes butter sales were practically doubled at almost 80 million pounds. Savings to member-producers were effected not only by stressing high quality and developing a consumer's preference therefor, but also by shipping in large quantities directly to developed market outlets. Whereas, before Land O'Lakes was formed, 80 percent of its members' butter had gone to New York and Philadelphia, in 1926 only 26 percent went to these cities (22), with savings on cross-hauling and reshipment and without the depressing effect on prices which had resulted at times, at least, from excessive receipts due to uncoordinated shipments. The chief outlets for the cooperative in 1926 were chain stores, jobbers, milk companies and ice cream manufacturers. It was supplying 25 large chains operating 20,000 stores at that time (19-c) and was in contact with one or more jobbers in each of the large cities. The ice cream companies' demand for (unsalted) butter was for use in ice cream in times of seasonal cream shortage.

Another rapidly growing cooperative was Challenge on the west coast. It was marketing nearly 26 million pounds of butter for its members in 1926 (24-a), an amount almost nine times as great as in 1918.

Closely allied with Land O'Lakes' drive for improved quality was its extensive use of federal grading at central country points after which certificates were made available for each 1-pound carton of butter certifying that the butter was 93-score or better. This practice, with the government's prestige exploited to the limit in the cooperative's advertisements, brought sharp criticism from the trade association of centralized butter manufacturers, who contended that butter scoring 93 in the country might (and had, according to "accurate" tests) score below 90 at the time of the consumer's purchase.[15] In spite of the furore aroused by this practice because it appeared the federal government was definitely "playing favorites," the offering by the Department of Agriculture of the same arrangement on a cooperative basis to private companies as well as producers' cooperatives brought such a marked response from the private concerns[16] that a trend toward grading at or near the point of production instead of at the central market may be named as one of the important post-war developments.[17]

[15]See article in N. Y. Produce Review (52-i) by Dr. G. L. McKay, Secy., American Association of Butter Manufacturers, also editorial on his article. The Review agreed with him but did say that credit was due Land O'Lakes for "improving the quality of its product and its keeping quality." The Association also was strong in its attack on the exploitation of federal prestige by Land O'Lakes, in one of whose advertisements even the Secretary of Agriculture of the United States was shown in plainly-labeled Land O'Lakes cap and apron.

[16]E. g., Armour and Co. at Mankato, Minnesota and National Dairy Products at Dubuque, Iowa.

[17]W. Bruce Silcox, Extension Economist, B. A. E., interview.

It is a general principle of marketing that the more perfectly goods are graded and standardized at the point of production, the more readily, and probably economically, they can be traded in "directly." Grading and standardization had been important functions performed by the wholesalers and jobbers in the past. But, as grading and standardization became integrated with production, butter dealers became obsolete insofar as these particular services were concerned, although either they, or a substitute in a more integrated channel, still had important *selective* services to perform in order to get each lot of butter to those consumers preferring the grade and quality which that particular lot possessed.

Meanwhile, the chain stores were becoming an ever more important factor. A review of the New York butter trade (63) of 1925-26 pointed out (italics mine) that " . . . [demand] would have been better if the smaller grocers had not insisted on so great a margin between the wholesale and retail prices . . . An unusual percentage of the trade went to the *big chain stores all of which sold finer quality than ever before* at only a fair profit over cost . . ." Another source (52-j) observed that "Each year the outlets for second grade butter become more restricted . . . only a few years ago . . . some of the big chain stores used cars of 89 to 90 score centralized as their standard grade of tub butter . . . [now] nearly all of them are calling for the 91 to 92 score goods [or even better]."

While the Great Atlantic and Pacific Tea Co. had been selling 35 million pounds of butter annually in 1920 (14), its sales exceeded 100 million pounds in 1926 (52-k) by which time it embraced over 14,000 retail units as its period of rapid expansion neared a close. (In 1928 a peak of 15,671 stores was reached after which the number of stores began to decline.) The A. and P. now had a well-organized buying department, with a western soliciting force, a man to promote improved quality, and inspectors and buyers on the most important central markets (52-l). It invited shippers of fancy butter to take advantage of its direct outlet to so many stores ("the Biggest Buyers in the World of Fancy Creamery Butter"), and its "rapid and efficient distribution, as our warehouses, located in all leading cities, have private railroad sidings and ample refrigerator facilities."

The American Stores Co. with about 1,800 stores, was soliciting (52-m) shipments from creameries which were willing to raise the quality of their butter—with the help of the company's field man—to 92 or 93 score. Other large and growing chain stores in 1926 were Kroger with about 2,900 stores, Piggly Wiggly with 2,000 stores, First National Stores with 1,650, and others, all offering a rapidly increasing market for direct shipments of butter without its passing through the hands of any wholesale agency before reaching the integrated channels of the company which was to sell it finally to the consumer.

In the 8 years following the War, Swift and Company had practically doubled its number of produce plants, with 55 in 1926, but its number of creameries had increased only slightly from 38 to 41 (49-b).[18] It was expanding rapidly, however, in distribution in the whole produce field, as were the other large packers. Armour and Company, meanwhile, was notifying the trade (52-n, italics mine) that " . . . only [about] 50 percent of the produce distributed to [our] 500 or more branch houses represent goods that are 'Armour' packed and branded. *Armour and Co. are in the business every day locating and buying the other 50 percent needed to keep a nation-wide selling organization actively engaged.*" In 1927 Armour had 27 creameries, over twice as many as in 1918, and almost a 70 percent increase over 1925 (53-a).[19]

Similarly, Fairmont Creamery Co., with 16 centralizing manufacturing plants and distributing 56 million pounds of butter (1926), was soliciting butter for sale or consignment apart from butter manufactured in its own plants in order to maintain a profitable volume for continued operation of its distributive facilities. Beatrice Creamery Co., with total sales of 75 million pounds (a 23 percent gain over 1918) in 1925 likewise purchased practically half (49.6 percent) of its butter (49-b). Blue Valley Creamery Co. had grown rapidly to a volume of 40 million pounds or more, a gain of over 50 percent in volume in the 8 years since 1918, and had 22 creameries.

The continued expansion of the packers and centralizers was of great importance because they distributed their product directly to retailers, making it desirable to use more fully their costly distributing resources. To do so they made large-scale purchases of other butter for distribution along with that manufactured in their own plants, bringing increasing pressure on the old-line wholesalers as still greater volume was diverted to more integrated and direct channels.

Wholesalers in the large central markets were affected not only by loss of business to other distributing agencies within their respective cities but also by "loss of part of [their] *out-of-town trade* which [had] fallen away with the development of more direct distribution between producing areas and the smaller eastern cities (70)." Rapidly increasing local needs, however, were instrumental in largely offsetting this loss in such centers as New York City.

Under the force of competition the tendency was therefore constantly toward more direct distribution both geographically and physically as qualities were improved and standardized and as the

[18]From this period on, the writer found it necessary to lean heavily on the number of packers' "produce plants" as an index of changes taking place in their number of "creameries," because the latter was often not available. A very important proportion of the packers' "produce plants" handle only poultry and eggs, so that it is a very rough measure, at best, for our present purpose.

[19]Armour had thus increased the proportion of butter manufactured in its own plants considerably over 1918.

necessity of re-inspection and re-selection was reduced. The constant effort of the wholesaler-jobbers was to meet the prevailing and growing chain store competition by as direct and economical a movement as possible to the retail store. "Thus the tendency of the chain store to buy direct from primary points, grade its purchases if necessary and then move the graded product directly to its retail stores, is met by a similar direct distribution on the part of the dealer . . ., who must depend on his judgment of qualities, his ability to grade to meet the needs of his retail customers and an economical handling to meet the economies of the chain store. For, after all, the chain store . . . must still, if it is to please its trade, perform the [same] selective services . . . the jobber [does]. It gains an economy in large business volume, but it sacrifices that great chance of economy through intimate contact which the jobber can realize in directing the affairs of his own enterprise" (70-a).

It is probable, however, that, on the whole, those organizations which participated in the marked trend toward more direct marketing after the War were content to appeal to and meet the needs of that majority of the consuming population which is not inclined by reason of natural bent or economic conditions to be unusually discriminating in its preferences for the butter it buys, and hence such organizations did *not* "perform the [same] selective services . . . the jobber [does]." While all the direct-marketing organizations shared somewhat in the trend toward improved quality in the post-war period, no doubt increasing consumer consciousness of differences in the quality of butter thereby, the chain stores, packers and centralizers all probably found their outlets chiefly among those conforming to a less discriminating "average taste."[20] The chain stores tended to offer a relatively good quality of butter, but its sale was largely based on price-appeal and a low margin. The packers and centralizers endeavored to offset the somewhat inferior quality (generally true but not without exception) of their product by considerable expenditures in the development of brand-preference through advertising and other sales promotion. Of those marketing direct, only the large cooperative organizations combined the finest quality with an effort to develop consumers' preferences for a branded product to such an extent that a retail premium would be willingly paid in order to obtain the best quality available.

Because of the more limited number of quite discriminating consumers, to whom the large cooperatives of necessity had to appeal on grounds of quality, the wisdom of attempting to integrate the *selling* or *outlet-finding* function with production and standardization is more to be questioned than in the case of those private organizations which produced a product of more nearly average quality and which,

[20]An analogous case is that of those large retail chains which sell shoes, largely on a price basis. Only shoes which can be worn by the more or less "average" foot are carried, uncommon widths and lengths not being manufactured or stocked at all. A person with an unusual foot has no choice but to go to a store which specializes in fitting such feet and must pay for the extra selective service involved.

all factors considered, appealed to a wider and less discriminating market. Since consumer demand is a composite of a multitude of tastes and preferences which a specialized agency, such as a jobber, is probably in the best position to sense, he will always find a place in the market picture in serving that considerable body of consumers which has the most discriminating, fastidious, or even "peculiar" preferences, perhaps even for certain attributes completely apart from actual grade or quality.[21] He will also have to continue to perform such standardization as is not performed nearer the source of production.

In 1925 the leading trade journal noted that "the wholesale and jobbing business . . . is highly competitive and composed of some large but many small business units. The trend of the times toward business consolidation has not yet made much progress here, an indication of the economy with which the individual units are now being operated" (70). In less than a year later, however, the same journal was taking a markedly more pessimistic tone as to the wholesalers' position in the marketing picture (52-o): " . . . [under] the method of receiving goods on a contract or guarantee basis . . . [the price] has been forced too high in relation to selling values by the stress of competition. The cause of an undue competition is probably the fact that in relation to the total product, the need for wholesale distribution through the old line houses is decreasing and has already been much lessened." Chain stores, packers and cooperative marketing organizations were named as the chief factors in diminishing the wholesalers' volume of business, leaving "chiefly the unstandardized goods" for general distribution through the old-line wholesalers "at little or no profit."

The usual method of trading here referred to between the primary shipper and the wholesale receiver is by verbal contract; the price to be paid for the shipment is based by mutual agreement on some selected quotation. The quotation selected and the relation to that quotation presumably varies with the quality of the goods and the reputation of the brand under which they were packed. Competition and the peculiar appeal of receiving a "premium over the market," however, had made such a premium universal, so that it was obviously necessary for the receiver paying such a premium also to *sell* his butter at a premium if he was to show a profit. Thus we have the perplexing problem of quotations purporting to represent prices received by wholesalers in sales to jobbers, while the prices previously paid by the wholesalers for the same goods are these quotations plus a premium. While many think of this as a new problem (the post-war editorial pages of the New York Produce Review carried this subject far more frequently than any other),

[21]For example, the Jewish consumer of the eastern cities is extraordinarily discriminating in his demands for a butter to suit his taste. Not only must it be unsalted, as a rule, but it must not possess a degree of rancidity such as would be imperceptible to the "average" consumer.

the Review's second issue, in 1896 (52-p), carried an editorial in which it pointed out that "an abuse of competition" had led most of the New York butter houses to buy on a basis of guaranteeing ½ cent above the Urner-Barry quotation and called for efforts to eliminate this cut-throat practice. The Review's publisher, the Urner-Barry Co., was prompted to take this stand because of charges that it was making quotations which were depressed enough below the actual ruling price to make such premiums possible.

The 1926 editorial (52-o) continued: "Naturally, the result of this condition has been a tendency toward reduction in the number of wholesale receivers"—either through combination or going out of business. The suggested solution was a reasonable service profit on that considerable part of receipts which would not be adapted to direct distribution for many years to come. In a later issue the Review (52-q) expressed its belief that the unprofitability of the wholesale trade was "the result of an undue competition to hold in the general wholesale market standardized goods which are fit for more direct outlets."[22]

That these were not idle words is shown by a survey of the trade journals of this period. Such a survey reveals that the mid-'20's were marked by reports of failures of a considerable number of (often well-known) wholesale houses and of consolidations of other long-established, substantial firms.[23]

SUMMARY

Almost all of the major developments of the post-war period in butter marketing became evident during the years 1921-27. The marked trend toward a higher-quality product gained an ever-stronger foothold during the post-war years, especially because of the combined efforts of the newly-formed cooperative sales agencies, the rapidly developing chain store organizations, and the dairy extension workers of the state colleges, although the packers and centralizers also shared somewhat in the advance.

The two leading cooperative marketing organizations, Land O'Lakes and Challenge, quickly rose to a position of importance during this period, their whole campaign centered on "quality appeal." Land O'Lakes, in its desire to develop a pronounced consumer preference for its products, soon was packaging butter under its own brand and for that reason sought to hasten the trend away from bulk butter, which was sold to the final consumer from tubs. Important savings on freight, cross-shipments and the prevention of "dumping" butter on the central markets were made. In conjunction with Land O'Lakes' drive for quality was the first cooperative arrangement with the United States Department of Agriculture pro-

[22]An unusually sound and frank statement for a trade journal to make.

[23]E. g., the consolidation of the two famous old houses of D. W. Whitmore and Co. (est. 1869) and Charles P. McCabe (est. 1859) in 1927 (52-r). This house was purchased by National Dairy Products Corporation through Kraft-Phenix (subsidiary) in 1931.

viding for grading at central country points. When this privilege was made available to private companies as well, a trend toward federal grading at or near the point of production instead of on the central markets was under way. This movement at the same time tended to eliminate the need for what had once been an important function of the wholesaler—that of grading and standardization—and thereby favored more direct marketing.

The chain stores were now growing very rapidly, and as their demands for butter increased apace, they turned to the establishment of their own integrated distributive facilities to which they solicited the shipment of high quality butter direct from country creameries. While the leading packers and centralizers were increasing their number of plants rapidly, not only were they manufacturing ever greater quantities of butter, but they were also buying increasing quantities from other manufacturers in order to make the most economical use of their nation-wide selling organizations.

The rapidly increasing importance of these various types of large scale, direct-distributing agencies was instrumental in bringing very great pressure to bear on the old-line wholesalers, especially from 1926 on, as increasing amounts of butter were diverted from the more lengthy channel, which included the wholesalers and jobbers, to the more direct, integrated route. The result was a definite tendency toward a reduction in the number of wholesalers, either through combination with other wholesalers and with jobbers or through business failure.

MERGER AND DIVERSIFICATION: 1928-1930

By early 1930 Beatrice Creamery Co. had 36 creamery plants, nearly double the number in 1920 (9-a). Before the end of the year its number of creameries reached 40 or more. Beatrice sold in that year about 97 million pounds of butter (slightly more than in 1929 and a gain of 30 percent over 1925) of which around 70 percent was produced in the company's own plants, the remainder purchased from other manufacturers. The company was producing a considerably larger proportion in its own plants, however, than in 1926. More important to note, Beatrice was now culminating a period of very rapid expansion by acquisition of other companies and had embarked on a diversified program of dairy and poultry products according to the example being set by the two modern giants of the dairy products field, National Dairy Products Corporation, which almost acquired Beatrice in 1927 (3), and the Borden Company. Table 2 shows the amounts of the various products being handled by Beatrice in the years of the period of rapid expansion, 1928-30 (49-c).[24] Between July, 1929, and November, 1931, Beatrice ac-

[24]So much space is devoted in this study to Beatrice for three important reasons. First (necessarily of importance to the researcher), an unusually large volume of data was available concerning it. Second, among the three largest dairy corporations, Beatrice (ranking third) was the only one which, before diversifying, originally made its name as a manufacturer of butter (our present interest) rather than of some other dairy product. Finally, it serves as an excellent example of the importance and economies of diversification in the manufacture and distribution of dairy products.

TABLE 2: VOLUME OF SALES BY KIND OF PRODUCT FOR BEATRICE CREAMERY CO., 1927-1930 (in units of a thousand).

Sales	1927	1928*	1929	1930
Value of sales (dollars)	$39,981	$53,306	$83,682	$82,811
Butter sold (lbs.)	58,530	65,194	95,837	97,273
Butter produced (lbs.)	44,770	50,832	66,063	70,206
Butter purchased (lbs.)	13,760	15,362	29,774	27,067
Ice cream mfgd. (gals.)	984	3,409	5,267	9,360
Eggs (doz.)	12,448	15,715	57.119	57,848
Milk (gals.)	1,996	12,101	21,023	29,761
Cheese (lbs.)	2,526	2,765	3,206	3,347
Poultry (lbs.)	1,838	1,853	9,171	14,750

*Excluding Fox River Butter Co., sold June 1, 1928. Because this subsidiary is eliminated in this table for 1927 and 1928, the butter figures as here given are somewhat too low in these 2 years for comparison with butter volume in 1925 (as given supra, p. 333), which included this subsidiary.

quired 94 separate and distinct companies in 17 states, most heavily concentrated in Illinois, Iowa, Missouri and Ohio but including Colorado, Maryland, Montana, New York, Oklahoma and Pennsylvania as well. Table 3 shows when these acquisitions were made and the total number of operating units for the various products at each date. By the last part of 1930, besides 41 creamery units, Beatrice had 83 ice cream units, 50 fluid milk units, 9 cold storage plants and 4 ice plants.

In 1929 a letter to stockholders (4) explained that the substantial increase in volume and sales of creamery butter in 1928 over 1927 was due chiefly to an increase in business from properties previously owned and not from acquisitions. However, in line with its policy of "expansion in the ice cream department . . . the volume for 1928 is almost ten times in excess of the volume four years ago," the result of a number of acquisitions. Ice cream offered an unusually good margin, a chance to market more butterfat at home and helped to absorb part of the cost of refrigeration already required for butter (6). In fluid milk, "following the company's policy of diversification," it was "gradually adding milk plants [because] milk plants fit in very satisfactorily with [its] business . . . and . . . [because its] policy of diversifying . . . [was expected to] add greatly to the stability and earning power of [the] Company." Finally, Beatrice was operating "the only transcontinental cold storage system in the United States . . . [with warehouses] in Los Angeles, Denver, Topeka, . . . Chicago, . . . Scranton and New Haven," and this department was said to be profitable, with promise of further expansion, since the cost of refrigeration could be lowered if fuel or power was bought in larger quantities on a 24-hour-a-day schedule and part of the storage space sold to others. From this it may be seen that Beatrice's continued and accelerated expansion in 1929 and 1930 was in line with a planned policy of diversification in order to obtain greater stability and earning power. Fairmont Creamery Co. also diversified but on a far less extensive scale. This trend toward diversification of product and terri-

TABLE 3. ACQUISITIONS BY BEATRICE CREAMERY COMPANY 1929-31 AND TOTAL NUMBER OF OPERATING UNITS FOR THE VARIOUS PRODUCTS AT EACH DATE (9-b).

Number of acquisitions		Date of stock listing	Total number of units* at given date				
			Creameries	Ice Cream	Milk	Cold Storage	Ice
		1929					
56	34	July 7	23	49	17	6	3
	15	Aug. 20	26	49	30	8	3
	7	Nov. 1	31	57	37	8	3
		1930					
37	10	April 3	36	66	38	8	3
	18	July 8	40	77	45	8	4
	6	Aug. 20	41	82	48	8	4
	3	Nov. 14	41	83	50	8	4
		1931					
1	1	Nov. 6	41	83	50	9	4
94							

*"Unit" rather than "plant" because several such units may be in the same plant.

torial expansion[25] in the dairy products industry was very marked in the post-war period, accompanying the greatly accelerated growth of large dairy corporations. Although space will not permit further elaboration on this important development, it should be mentioned that the Borden Company, originally selling only condensed milk in New York, had by now expanded (with 207 acquisitions between 1928 and 1932) until it was nation-wide and manufactured and sold every conceivable dairy product; that the chief product of National Dairy Products Corporation, originating as a holding company in 1923, was at first ice cream, but by 1932 it had acquired 317 companies and was manufacturing and selling all dairy products (34); that the Carnation Company, whose early name was made as a manufacturer of evaporated milk, is now a leading distributor of fluid milk in the four leading Pacific Coast cities and in Texas, Oklahoma and Arkansas; and that the Kraft-Phenix Cheese Corporation which, before National Dairies acquired it in order to make a strong bid in the cheese line, had itself already undergone considerable diversification, especially through its subsidiary, Southern Dairies (with ice cream and fluid milk plants throughout the South), and other acquisitions manufacturing butter and concentrated milk.[26] Thus we see that the large dairy corporations, regardless of original emphasis on any single dairy product, have spread out to manufacture and distribute all such products. So far as butter is concerned, National Dairy Products Corporation, the largest in the dairy products field, sold 98.4 million pounds in 1930 (49-d), compared with 40.5 million pounds in 1928 and 21.9 million pounds in 1926. No figures are available on the amount of butter handled by Bordens,

[25]Greater stability is claimed because all territories are not affected equally severely by adverse conditions—either of business or of production—and profit margins on goods vary (e. g. high margins prevalent on ice cream) (31-a). It is not meant to imply here that promotional and monopolistic (non-efficiency) motives were not paramount in the mushroom growth of these dairy corporations. Such motives, however, were much more likely in the other important dairy products than in butter.

[26]And of high importance, although not a dairy product, mayonnaise.

the second largest dairy corporation, but it is believed to have been considerably less.

Armour and Company had 59 produce plants in 1930 (44), but its number of creameries showed no further gain so that its purchase of butter from other sources was still of major importance. It was also the leading distributor of bulk (unprocessed) cheese and had two large condenseries in Wisconsin. Swift and Company was apparently selling 118.6 million pounds of butter in 1929 from 76 creameries, a gain of 85 percent in number compared with 1926 (appendix table VI). It had 20 produce houses in Iowa alone. Swift was an important distributor of cheese, operating through two controlled subsidiaries in Wisconsin. Finally, it had about 10 ice cream units (53-b). Cudahy had 11 produce plants for butter (39-b) and bought cheese through a subsidiary company for distribution with its other products. Wilson had about the same number of produce plants. Thus it may be seen that dairy products were assuming still greater importance in the business of the great meat packers. Although figures are not available as to the volume of butter sales of the several packers, Fortune (3-a) reported that Swift and Armour passed Beatrice in this regard during the '20's, which would probably place both meat packers' respective sales at that time beyond the hundred million mark as undisputed leaders in the butter industry.[27]

In 1930 the A. and P. chain had 15,418 stores, slightly less than in 1928 but 10 percent more than in 1926. Its butter sales were approaching 200 million pounds.[28] A very small part of its sales (about 800,000 pounds) was now being manufactured on an experimental basis in its own creamery, built in Iowa in 1929, and it now owned three cheese factories and a subsidiary company which was one of the country's largest manufacturers of evaporated milk. Kroger, with 5,575 stores in 1930 (a 50 percent gain over 1926), had five pasteurizing and bottling plants, having been "a pioneer in the sale of fluid milk in grocery stores" (16).

American Stores, with 2,644 stores, was operating "a large milk evaporation plant, the entire production of which [was] taken over by the parent company and sold through its chain of retail stores" (17). Safeway Stores, Inc., a holding company formed in 1928 for two chains with 840 stores, had expanded by a number of acquisitions of other important chains, to 2,675 stores in 1930, at which time it also owned two California creameries. Finally First National Stores, with 2,549 stores in the Northeast, having found direct association with a cooperative organization of fluid milk producers satisfactory in the Boston area, saw fit to purchase outright or a controlling

[27]In 1931 Swift and Co. claimed that "[Swift] handles more meat and produce than any other concern" and in 1932, that their Brookfield butter was the "largest selling brand in the world." (45-c, 45-d).

[28]In 1932 it actually passed this figure, with 204 million pounds (50-a). Of this butter Iowa furnished 20.7 percent, Minnesota 18.5, Wisconsin 11.4, Indiana 9.7. North Dakota 5.7, all others, 34.0.

interest "in companies located in Minnesota and Dakota, operating five plants and over 300 country buying stations [for] . . . butter, poultry . . . and eggs" (13). The company gave as its reasons the need for an ample supply in the short season, uniformity of type and quality, and a better chance to adapt product to New England consumers' demands. From these facts it may be seen that there was some tendency, though not nearly as strong in butter as in evaporated milk, for chain store organizations to reach back to the manufacturing stage for at least a part of their final volume of sales of dairy products.

In 1930 Land O'Lakes Creameries, with a membership of about 470 cooperative associations, for the first time handled over one hundred (101) million pounds of butter, of which 35 percent was sold, largely in eastern markets, under their well-known brand name, "Land O'Lakes" (24-b, 50-b). They had extended their direct merchandising program until almost all[29] of their products were sold direct to retail outlets. In 1930 they set up 15 sales branch houses in the East and Midwest through which their butter and other products could be sold and delivered direct to their retail customers. This was the final step in their program of integration from the farm to the retailer.[30]

Challenge of California was now (1930) producing 33.9 million pounds of butter, a gain of more than 30 percent over 1926, almost all of it marketed direct to retailers. In 1928, dissatisfied with eastern brokers' sales of their dry skimmilk and eastern wholesalers' sales of their surplus butter, they arranged a working agreement with Land O'Lakes under which all butter and dry skimmilk sent east of the Rockies would be sent to Land O'Lakes to be marketed by that agency under its own brand, while Land O'Lakes products moving to California, if any, would be sold by the Challenge sales force under the "Challenge" brand. In this way, Challenge and Land O'Lakes products were not to be found on the same grocers' shelves, this division of territory eliminating any competition between the two cooperatives. In 1930 over three-fourths of Challenge dry milk was sold through Land O'Lakes in eastern markets (21). It has been said that two carloads of Challenge butter arriving on the New York market in 1 day would break the price, while if sent to Land O'Lakes and marketed discreetly, the price would not be affected.[31]

When the Federal Farm Board (23) came into existence it ap-

[29]This figure was "over 95 percent of all products" at the close of 1933. Address of John Brandt (27). This figure excluded sales to bakeries, ice cream companies and similar sales outlets (in unbranded form) since "it is difficult to classify sales to such organizations as either jobber or direct retail sales." (Letter of Oct. 7, 1938 to author from Brandt).

[30]Land O'Lakes had earlier (1924) denied its intention to take over this function: " . . . this Association [emphatically does not] . . . contemplate merchandising its own butter in the principal markets." (52-g) This statement was obviously made to appease somewhat the wrath of the old-line wholesalers at the threat to their well-being which this new organization potentially offered.

[31]Interview with Mr. A. E. Engbretson, Secretary of Interstate Associated Creameries of Oregon.

proved of the arrangement which Land O'Lakes and Challenge had and sought to further such regional sales agencies, insisting that cooperatives should not compete. In the state of Washington for some years before about 10 cooperatives of Washington and Idaho had marketed through the Consolidated Dairy Products Corporation, a private corporation in which an individual owned 51 percent of the stock, the cooperatives 49 percent. In the wave of cooperative enthusiasm which the Federal Farm Board brought about, this group of cooperatives borrowed nearly a million dollars from the board in order to buy the privately-owned 51 percent of the stock and become strictly cooperative as the United Dairymen's Association. Meanwhile, several unattached Oregon cooperative creameries were seeking federal loans, as was Challenge. The board, in line with its policy of refusing to loan unless there was coordination in the market and absence of competition among cooperatives, told the cooperatives to reach an agreement as to division of territory and told the (nine) Oregon creameries either to join Challenge or United or to form their own regional sales agency. The Oregon group chose the latter, so that the final outcome was three western cooperative sales agencies, one serving roughly the state of Washington, a second approximately the state of Oregon, and the third and largest, the remainder of the territory west of the Rockies, with all competition between cooperatives eliminated. Besides loans to these three organizations and to Land O'Lakes, the Farm Board granted a loan to the latter in January, 1930, to enable it temporarily to withhold its own product from the market and to "peg" the price on the exchange. These operations never reached more than 5.2 million pounds, but apparently had an importance out of all proportion to their size.[32] By March 15 prices stiffened and Land O'Lakes disposed of its holdings at a profit (56). Although Land O'Lakes controlled only about 6.4 percent of the total United

TABLE 4. DISTRIBUTION OF BUTTER SALES FROM MANUFACTURING PLANTS, 1929*

Channels of primary distribution	Percent of sales	Number of plants: Total	Number of plants: Selling exclusively
To own wholesale branches	22.5%	650	76
To industrial and other large users	2.6	410	14
To wholesalers and jobbers	39.6	1,916	291
To own retail stores	2.3	170	31
To retailers (including chain stores)	22.8	1,778	287
To household consumers	10.2	1,906	76
Total	100.0%	3,213	

*Census of Business, Distribution of Manufacturers' Sales, U. S. Dept. of Commerce. Bureau of the Census, April, 1937, table 1, p. 34 (68).

[32]The cooperative, fortified with the government loan, was able to offer to buy 92 and 93-score butter at the market quotation, but it found no buyers, indicating speculative operations (56). Furthermore, as Black (55-a) has pointed out, "autumn stocks were low that year due to poor pastures." As to this means of pegging the price, Black (55-b) found "nothing remarkable . . . any agency with **adequate financial backing** could do the same at any time. It need only buy all offered for sale below that price." (boldface mine.)

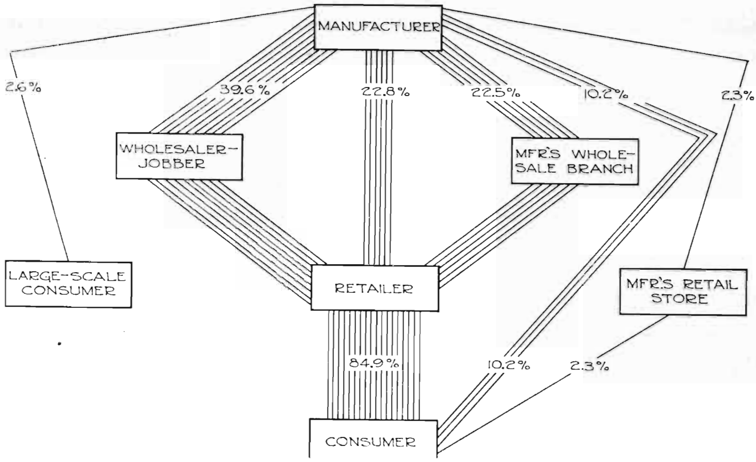

Fig. 1. Primary channels of butter distribution, 1929. (Based on table 4.)

States production of creamery butter, the existing pricing mechanism, under which the exchange of a relatively minute proportion of all butter sets the price for the whole, no doubt made some degree of price control feasible, provided adequate financial resources were available.

In 1929 the first quantitative measurements of the marketing channels for butter became available with the first census of distribution. Table 4 gives the distribution of butter sales from manufacturing plants as to channels of primary distribution. It may be seen that by 1929 only 39.6 percent of butter production went the less direct route via wholesalers and jobbers, while 45.3 percent was sold direct to the retailer or through the manufacturer's own wholesale branches. The remaining 16.1 percent was sold directly to the ultimate consumer (large-scale or household) or through the manufacturer's own retail stores. These channels are pictured in fig. 1. Sales negotiated through agents, brokers and commission houses were not obtained in 1929, so this channel has been omitted. It is a relatively small item, however. Concerning this tabulation, the wholesale dealers have argued that their position is understated.[33]

They based this claim on the alleged fact that "many of the independent distributors represent manufacturers and they are the contact with the ultimate retailer . . . [and] upon a very small cost have allowed the manufacturer to sell direct to the retailer." Further-

[33]Record of Hearing on Proposed Butter Marketing Agreement, A. A. A. Docket No. 32 (59), testimony of representatives of the National Association of Butter and Egg Distributors. These dealers were seeking representation for the trade and the hundreds of small creameries whom they served on the proposed "National Butter Board," which tentatively called for five members from the American Association of Creamery Butter Manufacturers (composed chiefly of the larger centralizer creameries) and five from the National Cooperative Milk Producers' Federation (of which the large cooperative marketing associations were members), all representing interests which marketed direct to the retailer. The dealers demanded 4 out of the 10 members of the board, since they (independent distributors) "market in excess of 50 percent of all butter manufactured in the United States." The marketing agreement was never put into effect, so the issue never was settled.

more, "much of that butter which the manufacturer-distributor sells through his own distributing outlet is handled through the independent distributors." Finally, of the butter manufactured by milk plants in the surplus season, not covered by the census,[34] the independent distributors claimed "the bulk." From the two chief direct channels, therefore, the wholesale dealers claimed at least 11 or 12 percent, which would put them past 50 percent. The true quantitative importance of these claims is, of course, purely conjectural, although it is obvious that the dealers had the desire to stretch the figure as much as possible in order to maximize their own importance in the marketing picture.

An important offsetting factor to the wholesalers' claims is the volume of butter sold by many small local manufacturers to the wholesale branches of large scale manufacturer-distributors. These would probably be considered as wholesaler-jobbers by the local creameries, rather than as wholesale branch agencies which were buying directly to increase the volume of the direct sales of the products of the integrated concerns of which they were a part. The wholesaler-jobber channel, therefore, probably includes some of the wholesaling business of the manufacturer-distributors as well as that of the regular old-line wholesale houses. Figure 1 (and 3) is, therefore, oversimplified, since it fails to distinguish between local manufacturing plants and large scale manufacturer-distributors, which not only manufacture and distribute their own butter, but also buy butter from other (chiefly local) manufacturing plants. If the reader is interested in greater detail as to the many sources of supply for butter purchases and sales outlets for the different types of marketing business units, he may wish to refer to data now available in a recently published report of the federal trade commission (62-d), some of which are presented in the next section of this study.

SUMMARY

The most important development of 1928-30 was the rise of the large dairy corporations and their marked trend toward product-diversification and territorial expansion. The largest butter centralizer, Beatrice Creamery Co., embarked on a diversified program of dairy and poultry products according to the example being set by the two largest dairy corporations, National Dairy Products and Borden, and in less than 3 years acquired nearly 100 other companies. By 1930 ice cream, fluid milk and cold storage occupied coordinate positions with butter in the company's business, with eggs of somewhat less importance. Fairmont, the second largest centralizer, also diversified but on a much less extensive scale. This trend toward diversification and territorial expansion was encouraged by the hope for greater stability and earning power which a whole chain of complementary and supplementary relationships made economic-

[34]The census covered only those "engaged primarily in making butter."

ally desirable. While National Dairy Products' and Borden's primary interest was not (and never had been) butter, they produced or distributed a very large volume in the aggregate by 1930, by which time they ranked among the nation's largest butter distributors.

The meat packers were meanwhile assuming still greater importance in the dairy field, Armour and Swift probably being the largest butter-marketing companies in the United States during 1928-30. The big packers were also very large distributors of cheese, and Armour was manufacturing condensed milk in its two Wisconsin factories.

While the chain stores had been selling rapidly increasing amounts of butter, no one of the five largest chains was producing more than a minor proportion of its butter in its own plants, although three of the five had acquired one or more creameries during 1928-30. A tendency toward integration back to and including the manufacturing stage of butter was, therefore, very slight, although the trend toward company manufacture of evaporated milk was already very marked.

Land O'Lakes by 1930 was one of the three largest distributors of butter in the United States, and practically all of its products sold to retail outlets were sold direct through 15 sales branches just established. Challenge, too, was marketing a very large volume of butter direct to retailers. In 1928 the two cooperatives reached a working agreement involving the division of territory so as to eliminate competition between the two cooperative organizations. The Federal Farm Board approved of this arrangement and two other Pacific Coast regional sales agencies were formed on a similar basis by Washington and Oregon cooperatives. In the difficult times of 1930 all four of these cooperative butter agencies received loans from the Farm Board, and Land O'Lakes' very large organization was used by the Board to "peg" butter prices for a few months.

By 1929 only 39.6 percent of the country's butter moved through the once-dominant wholesaler-jobber channel, the remainder being distributed through more direct channels integrated as far as the retailer or even the ultimate consumer.

THE DEPRESSION YEARS: 1931-1937

While the Federal Farm Board's first experience in financing the holding operations of large-scale cooperatives had proved successful, a second was not. Black (55-a) has observed that "the two years of such operations proved a heavy drain on the accumulated surplus of the cooperative in question [Land O'Lakes], and it discontinued its holding policy for the time being."[35]

[35] According to Black (55-b): "The principal difference between [these] Farm Board operations and the 1933 butter operations [of the AAA] is that the Farm Board had to contend with a very elastic foreign market, a market that went to other countries for its supplies when our prices were held out of line with the world market. As a result, prices were probably depressed later by accumulated stocks as much as they were temporarily raised by the pegging operations. In the recent experience with butter a way of disposing of purchases [relief] was found from the start, and prices were subsequently maintained."

As already noted, the Agricultural Adjustment Administration never consummated a butter marketing agreement, although the preliminary steps toward it were taken. Government aid was limited, therefore, to considerable purchases of butter for relief purposes.[36] Between August, 1933, and April, 1934, 51.6 million pounds of butter were purchased by the government through its Federal Surplus Relief Corporation and two private organizations, Land O'Lakes and the Dairy Marketing Corporation, which acted as brokers or buying agents on the central markets for the government, buying on confidential orders from, and financed by, the government. This purchase program reduced excessive holdings without affecting the long-time situation as a whole.[37] Inability of producer groups to reach agreement prevented the expected attack on overproduction following these surplus-removal operations. Black (55-a) has estimated that the government purchases "may have raised the average annual price to producers by a cent or two per pound, but probably did not raise it more than a cent."[38]

Relatively small and declining quantities of butter were purchased by the government, through its Federal Surplus Commodities Corporation, in the storage years (May to April) 1934-35, 1935-36, and 1936-37, purchases falling to 1.7 million pounds in the latter year (appendix table VII), as butter prices recovered with improved general business conditions. As a result of the severe recession (with its repercussions on butter prices) in mid-1937, however, 9.8 million pounds were purchased in 1937-38.

Between May and September, 1938 (inclusive), purchases on the biggest scale in the history of the AAA were made, with the FSCC taking 16.8 million pounds of butter, all of which was shunted over into relief channels. The Dairy Products Marketing Association (the government-financed private organization) purchased 99 million pounds during the same period. This latter figure does not include 10 million pounds resold by the D. P. M. A. to the FSCC (included in the 16.8 million pounds quoted above). Plans have been made for the FSCC to take over additional butter from D. P. M. A. for relief purposes.

"While the D. P. M. A. program provides for resale of butter held by the Association to the trade at prices representing a moderate seasonal increase that is more than enough to cover the purchase

[36]" . . . the price of butter can [undoubtedly] be raised if large quantities are purchased and distributed as relief food for the unemployed, since without such relief aid they would consume much less butter" (ibid., 55-c).

[37]Except insofar as more producers were kept in business by the Government's program than under a policy of "laissez-faire."

[38]Land O'Lakes and the butter dealers were "greatly helped," however. "At the time that butter buying was begun in August, 1933, Land O'Lakes Creameries, Inc., was holding sizable stocks of butter, as were butter dealers generally. They had been led astray by the pseudo-inflation of the early summer. The increase in price to 24 cents, and the accompanying government purchases, greatly helped the cooperative and the dealers" (ibid).

For an excellent detailed analysis of the Government's butter operations and activities, 1933-35, see Black (55), Chap. XII, pp. 350-363: and Chap. XIII ("Production Control"), pp. 373-392.

TABLE 5. BEATRICE CREAMERY CO.: PERCENTAGE OF TOTAL SALES AND TOTAL NET EARNINGS ACCORDING TO PRODUCT AND PROFIT MARGIN, 1935; PERCENTAGE OF TOTAL NET EARNINGS, 1930 AND 1936.

Product	Percent total earnings c. 1929*	1935** Sales (000)	Percent of total sales	Net earnings (000)	Percent of total net earnings	Net profit margin (earnings to sales)	Percent of total earnings 1936 ***
Butter	30%	$26,470	46.3%	$140	14.2%	0.5%	25%
Milk	20	9,285	16.2	36	3.6	0.4	50
Ice cream	30	6,525	15.5	490	49.4	7.5	
Eggs		8,912	11.3	—130(d)	—13.1(d)	—14.6(d)	
Cold storage				155	15.6		
Orangeade	20	6,000	10.5	80	8.1	8.5	25
Miscellaneous				220	22.2		
Total	100%	$57,192	100.0%	$991	100.0%	1.4%	100.0%

*Fortune, June 1936, p. 129. The exact year is not known, the magazine saying merely "a few years ago." The year 1929 is chosen because this was the last year before butter prices broke, presumably with ill effects on profits from butter.

**Year ended Feb. 28, 1936. Earnings breakdown ("unofficial") in Fortune, June 1936, p. 85.

***United Business Service Letter, Oct. 31, 1937 (by permission).

(d) loss.

prices plus costs of operation and storage, none has been resold to the trade as yet."[39] It is, of course, too early to appraise the results of this program at the present writing.

In 1936 Beatrice was the third largest corporation of those whose business was limited almost solely to dairy products. Milk and ice cream accounted for about 50 percent of the total earnings, butter 25 percent, cheese, eggs and poultry the remainder.[40] Thus we find an interesting example of the extent to which diversification and concentration have now taken place in the dairy industry. For while Beatrice is still one of the largest companies in volume of butter, its butter sales at a recent date made up only 25 percent of its profits. Table 5 illustrates the important factor of greater stability which diversification brings.

Around 1929 butter accounted for approximately 30 percent of Beatrice's total net earnings. In 1935, although 46 percent of the company's sales were butter, this product brought in only 14 percent of net earnings, with a net profit margin of only 0.5 percent. In 1936 butter earnings apparently again reached a higher relative position at 25 percent of total earnings.

Fluid milk was responsible for 20 percent of net earnings in 1929, but also carried a very low margin of profit in 1935, bringing in only 3.6 percent of earnings in spite of representing 16 percent of total sales. No separate figure is available for 1936. Eggs brought large losses in 1935. Cold storage earnings were 15.6 percent of the total in 1935, while orangeade and miscellaneous products[41] brought

[39]E. W. Gaumnitz, Chief of the Dairy Section, AAA. Letter to author, Oct. 4, 1938.

[40]United Business Service letter (11) (used by permission). These figures are probably only approximations.

[41]Cheese, poultry, oleomargarine, fish and oysters.

in 30.3 percent of the earnings, being sold (on the average) at a substantial margin of profit of 8.5 percent.

But the consistent money-maker—in spite of being a luxury good, the consumption of which dropped very sharply after 1929—was ice cream, which accounted for 30 percent of earnings in 1930 and 49 percent in 1935, although it composed only 15 percent of total sales in the latter year. It made a substantial margin of profit of 7.5 percent in 1935. Milk and ice cream were not reported separately in 1936, although it is probable milk gained somewhat in importance relative to ice cream in that year.

It is readily seen, in the light of this analysis, that Beatrice has been greatly strengthened by producing and distributing other products than butter, especially in time of depression,[42] when relatively high margins on ice cream, cold storage and miscellaneous products have gone far to offset very low margins or actual losses in butter, fluid milk and eggs. At other times, when the market conditions for the several products are in a considerably different relationship, butter and fluid milk can contribute their full share to a profitable business. Beatrice at no time between 1930 and 1936 showed a net deficit *before* dividends. From 1932 on Beatrice (like the Borden Company) made no further expansions, so that in 1936 it had approximately the same number of units as at the close of 1931 (table 3 above). In addition it had 68 sales branches in 20 states (9-c). So far as its butter enterprise was concerned, Beatrice had 36 plants with a capacity of about 4 million pounds each (3).[43] In 1935 Beatrice sold 95.1 million pounds of butter, 63.2 percent of which was produced in its own factories (7-a). While the total volume of sales was about the same as in 1929 and 1930, there had been about a 10 percent decline in the proportion from its own factories. Beatrice's share of total American factory butter, however, fell from 6.1 to 5.2 percent between 1930 and 1935.

Fairmont Creamery Co., another large butter concern, ranked fourth in sales (after Beatrice) among American dairy corporations in 1936. In this year it had 31 manufacturing plants, 2 distributing plants, 5 sales branches and 7 sales offices (49-e). This represented almost a doubling of the number of manufacturing plants in 10 years (but only a few of which were additional creamery plants) and a considerable extension of its own distributing facilities, not only in the East but also in the South and far West. The company had four cold storage warehouses. In addition each manufacturing branch was equipped with cold storage facilities and was doing some public business. The company also owned a number of retail ice

[42]In depression butter always bears the brunt of price collapse in dairy products, because of the increased surpluses of milk (largely turned into butter) brought about by the decline in the consumption of fluid milk and by increased milk production.

[43]The discrepancy between this figure and "41" butter units given in table 3 is not believed to represent a decline in number of plants, but rather a difference of meaning between the terms "unit" (see table 3) and "plant" (where butter is the major product).

cream and dairy stores (10), and was distributing cheese, poultry and eggs. Fairmont, too, had diversified, although it was still primarily in the field of butter manufacture and produce distribution. In 1934 it was producing around 70 million pounds of butter a year (53-c).

Relatively little information is available concerning Blue Valley Creamery Co., since it is closely held, so that no information appears in the leading investment manuals. In 1933 (2), however, it had 23 plants in 17 states. In two ways other than its secrecy this company is unique. It has continued to operate primarily on the direct-shipper system, without cream stations, since its beginning, and it has never joined the centralized creamery trade association, in spite of its size. This company has shown little growth since 1924, with only two more plants now than then and still producing "between 30 and 40 million pounds." Its method of procuring cream has probably not been such as to make rapid growth possible.[44]

For National Dairies and Borden, butter has been somewhat incidental to certain other dairy products. Fluid milk particularly has been more important for both of these firms, cheese and ice cream more important for National Dairies, and concentrated milks more important for Borden. The volume of their butter sales, however, has become large in the aggregate. In 1934 Borden sold 88.7 million pounds of butter (7-a). Nevertheless, Borden (31-b) blamed its poor financial showing in 1935 on "current operating losses of the Produce Division, together with the losses attending the liquidation of certain of its operations . . . [However] . . . the scope of this division's operations have [now] . . . been greatly curtailed, policies and methods changed, and certain of its unprofitable operations discontinued and liquidated." As a result of this action, in 1936 (31-c) there was a "profit in that division for the first time in five years."[45] This division included not only butter but also cheese, poultry and eggs, but butter was one of the products the *production* of which was greatly curtailed. Following this curtailment only 11.7 percent of Borden's butter (7-a) was produced in its own factories. The volume of butter *distributed* still remained large, however, since many of the production units sold continued to sell through Borden's distribution system.

National Dairy Products Corporation, unlike Borden and Beatrice, acquired a number of companies in 1932 and following years. Between Jan. 1, 1932, and June, 1936, this company acquired 41 additional concerns. Almost all of these acquisitions, however, were additions to National Dairies' huge cheese and ice cream divisions,[46] with apparently no additions to its butter department. In 1934 National Dairies sold 92.3 million pounds of butter, 86.2 percent of

[44]Since 1933 Blue Valley is reported to have begun using cream stations to some extent.

[45]It was also said that fluid milk contributed 11 percent of that year's profits.

[46]In 1934 this corporation manufactured and sold 21 percent of the ice cream and distributed one-third of the cheese of the United States (32).

which was produced in its own plants (7-a), a decline in volume of 7 to 8 percent since 1930. As a percentage of total butter production, National Dairies' share showed a decline of about the same order as Beatrice's between 1930 and 1934—from 6.2 to 5.4 percent.

To give some notion of the extent of the expansion of National Dairy Products, Borden, Beatrice and Fairmont, Hoffman (33) has stated that "as of 1925 the combined sales of these four companies represented 15 percent of the estimated value of dairy products as given by census figures; in 1929, 35 percent; and in 1935, 39 percent."[47] A study of financial statements of some of these corporations seems to indicate that long-term investors have benefited little. Apparently those stockholders of one or more decades ago who have retained their stock to date are little better off (or in some cases, are worse off) under the grossly expanded organizations of today.

In 1934-35 the three largest dairy corporations sold approximately 16.3 percent of the nation's butter. The nine largest dairy companies sold 24.2 percent (7-b). These data exclude meat packers.

In 1936 Armour was operating 53 produce plants, a net decline of six plants since 1930. Of these plants, the number of creameries apparently dropped from 27 to 24 (53-d.)[48] This was brought about through the shutting-down of a number of plants because of lack of sufficient volume or because of unsatisfactory financial returns. The decreased volume in certain butter plants was brought about by increased competition (especially by cooperatives) for the cream,[49] and by severe drouths in several important produce areas. Furthermore, Armour was finding it difficult in some of its plants to manufacture butter, on the centralizer principle, which would meet quality standards such as competition made necessary for its nationally-advertised "Cloverbloom" brand. Instead the Company has found it more satisfactory and economical to increase its purchases from cooperatives and other manufacturers of butter of the grade and quality desired. In 1936 the produce business, it was reported, was "steadily growing in importance." During this year, an agreement was reached with Land O'Lakes under which Armour (38) takes a certain amount of the cooperative's 92-score butter to sell as "Cloverbloom" and distributes the higher-grade "Land O'Lakes" brand in territory where the latter's own distributing system fails to reach.

The extent of Armour's produce activities was indicated by For-

[47]This is admittedly a rather unsatisfactory comparison, for as we have seen, a considerable proportion of the sales of these dairy corporations is the sale of poultry, eggs, storage space, beverages and other non-dairy products. However, it is of some use in roughly indicating the trend toward concentration in the dairy industry.

[48]Including subsidiaries, this drop was from 29 to 27, according to an Armour official. Since both sources indicate the same trend (our chief interest), this discrepancy in the absolute figures is less serious.

[49]In Iowa, for example, several Armour creameries have in recent years been forced to change their method of procuring cream from stations to cream trucking-routes, because nearby cooperatives had been adopting this latter form of cream procurement in rapidly increasing numbers, offering the farmer the added service of farm-gate collection and obtaining thereby a better cream from which a higher-quality product could be made.

tune (37) for the year 1933.[50] These unofficial figures place Armour's produce volume in that year as follows: 90 million pounds of butter, 80 million pounds of cheese, 90 million dozen eggs and 70 million pounds of poultry. The value of its produce business was estimated at 59 million dollars, which would be 13 percent of its total sales for that year. Armour also sold 23 million pounds of oleomargarine in 1933 (through its by-products division). The Company's produce division was, according to Fortune, a "depression liability," it being asserted that, taking 1924-33 as a unit, produce had lost a little more than it had gained. This statement seems to check with the experiences of the largest dairy corporations. In 1935 Armour distributed 119.8 million pounds of butter (40-a) or 7.3 percent of the nation's factory butter in that year.

In 1935 Swift and Company had 113 produce plants, about 40 percent more than in 1930. "The Company's proportion of the total poultry, eggs, butter, and cheese entering [U. S.] trade channels [was] less than 10 percent" (47). However, Swift easily led all other companies in the volume of butter distributed—137.6 million pounds (40-a) or 8.4 percent of total factory production in the United States—in that year. Swift now had field service men to help producers with quality problems at most of its produce plants. In 1935 Swift was producing 59.5 percent of its volume of butter sales compared with Armour's 49.0 percent (40-a). Swift's continued expansion into manufacturing while Armour was shifting somewhat out of this end of the produce business is not fully clear. However, over a period of 30 years or more, Swift has always manufactured a greater proportion of its butter than Armour. Furthermore, Swift is reported to have picked up a number of "bargains" during the past few lean years. Swift's ice cream division also showed rapid growth after 1930, with 21 ice cream units in 1937 (53-d).

The most definite statement concerning the two leading meat packers' operations in dairy products was recently made by Hoffman (43): "Large-scale handling of dairy products is not confined to the . . . dairy companies. The meat packers have for years been important factors in the distribution of butter and cheese. The two big packers (Swift and Armour) rank next to the National Dairy Products Corporation and the Borden Company in volume of dairy products handled." Thus two meat packers, with whom dairy products are merely a "side-line," are outstripped in volume of dairy products by only two, strictly speaking, dairy corporations at the present time, and lead even these in *butter* sales. In 1934, National Dairies handled dairy products which represented 9.4 percent of

[50]"Unofficial estimates." These figures indicate that of the nation's cheese. Armour handled about 15 percent in 1933, and of the oleomargarine, about 10 percent, as compared with about 5 percent of the butter. Later figures by the federal trade commission (see text) indicate Fortune's estimates were too low.

By 1937 Armour owned between 15 and 20 branch cheese factories, largely in the South (53-d).

United States commercial milk production. Borden, Swift and Armour followed with 6.8, 4.9 and 4.7 percent, respectively. After these came Beatrice with 3.0 percent and Fairmont with 2.5 percent (40-b).

In 1935 Cudahy had not expanded its number of produce plants further than in 1930, the number still being 11. Production of meat and meat products "constituted over 90 percent of the company's business" (49-f). No information regarding volume of produce handled by Cudahy is available but if less than 10 percent of total sales is produce, as indicated by this statement, Cudahy probably handles about one-fifth to one-fourth the value of produce that Armour does. Wilson and Company had 13 produce plants (10) and the volume of its dairy-product sales is of about the same order as that of Cudahy, each handling the equivalent of 1.0 percent of the nation's commercial milk in 1934 (40-b). Since Cudahy leads Wilson in cheese volume (40-c), the latter probably leads Cudahy in butter sales.

From the two sources just cited, it is estimated that Cudahy distributed in 1935 about 25 million pounds of butter. Wilson distributed 28 million pounds (40-d). In 1934-35 the three meat packers most important in dairy products distributed 16.8 percent of the nation's butter, while the 10 largest such packers distributed 18.7 percent (40-d).

After reaching a peak of 15,737 stores in 1931, the number of stores in the A. and P. chain had fallen to slightly over 15,000 in 1936, but it still had about three times as large a volume of sales as the second largest chain organization, Safeway. A. and P. property in 1936 included 39 produce warehouses, 4 butter warehouses, 3 cheese plants, 1 creamery, 1 canning condensery and 10 condensing sub-stations (10). Butter is one of the A. and P. commodities which has its own division and does not come in contact with other products such as cheese, dried milk, eggs, etc. This department has verbal agreements with creameries and centralizers to receive shipments of butter on the basis of the Chicago "Extra" (92-score or above), the Chicago "Standard" (90-score carlot), or the New York "Extra" quotation, according to grade of butter and location of receiving warehouse. These creameries and centralizers are, of course, free to ship elsewhere whenever they desire, and the chain organization can likewise refuse their butter.[51]

In 1936 the A. and P. sold 149,929,000 pounds of butter as compared with 162 million pounds in 1935, 183 million pounds in 1933, and 204 million pounds in 1932. As percentages of total American creamery butter production, these amounts were 9.2 percent in 1936, 9.9 percent in 1935, 10.4 percent in 1933 and 12.0 percent in 1932. Thus, while a single organization, the A. and P., has brought from 9 to 12 percent of American butter to the final consumer in recent

[51]For this detailed data of A. and P.'s butter operations the author is deeply indebted to R. E. Eldred of the Company's Chicago butter warehouse.

years, its share of the whole has been definitely declining during that period.[52] Even in 1936, however, the A. and P., although manufacturing a negligible amount of butter, was probably without question the country's largest butter-*distributing* organization, integrated through the retailer if not back through the manufacturing stage.

What, then, are the sources of supply of this gigantic butter merchant? Centralizers furnish approximately 50 percent, local creameries (largely cooperative) 40 percent and meat packers approximately 10 percent.[53] Since the meat packers probably distribute 18 percent or more of the nation's butter, it appears likely that this one chain-store organization, at least, buying only 10 percent of its supplies from packers, does not offer the proportionately most favorable outlet for the packer's butter. That this is true for chain stores in general, since the latter, having well-integrated butter-distributing departments, do not need to depend on the packers' extensive distribution systems as do many of the independent merchants, is strikingly shown by recent trade commission data (62-a). Of 12 leading dairy companies' sales of butter direct to retail outlets, 83.2 percent went to chain stores, 5.3 percent to voluntary chains and 11.5 percent to independent retail stores. Of the butter of 10 meat packers most important in dairy products, only 9.6 percent went to chain stores, 2.4 percent to voluntary chains, while independent merchants received 88.0 percent.

A. and P.'s butter department has its own country buyers or solicitors and receives the major part of its butter direct from the manufacturer, although at times it does buy on the open market through brokers or wholesalers. During the heavy-production months of May and June the company stores a great deal of butter for use during the months of low production. The company does not own its own cold storage warehouses, however. It endeavors to control quality by the maintenance of a laboratory where analyses and tests of composition and quality are made, by careful inspection and personal contact with manufacturers through its five field men, three of whom are in Iowa, one in Minnesota and one in Wisconsin. A. and P. still owns and operates only one creamery and this has thus far been used chiefly for experimentation. Apparently the success of this creamery has not been such as to encourage further integration

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[52]In February, 1938, A. and P.'s number of stores had fallen to 13,300—a decline of about 11 percent since 1936 and the lowest number since 1925 (49-g). The other large chains showed similarly marked drops. One important reason for this decline has no doubt been the rapidly spreading chain-store taxes of recent years, which taxes are progressively heavier as the number of stores increases. Should this new development continue, it may, by cutting down the number of outlets and the volume of butter sold, force direct buying operations to be curtailed. A second important reason has been the increasing substitution of super-markets for a greater number of ordinary stores.

[53]Accordingly A. and P. bought directly from local creameries about 60 million pounds in 1936; 65 million pounds in 1935; 77 million pounds in 1933; and 82 million pounds in 1932 (40 percent of its total sales in each of these years). These figures are roughly the net amount added to direct-marketing channels by A. and P. To count centralizer and packer butter would involve double counting.

back to the manufacturing stage for butter, since 9 years have passed without any additional creameries being acquired or built.

Butter is concentrated by rail at the four butter warehouses located at Chicago, Philadelphia, New York City and Springfield, Mass. At these warehouses it is graded, weighed, sampled, printed[54] and packed. It is then shipped to eight divisional warehouses,[55] from which it is shipped to local warehouses for distribution to the stores. Excepting storage stock, all butter is distributed to the various retail units within a period of a few days. A retail-store manager makes known his butter needs by sending a "perishables" order to the divisional, which in turn sends the order on to one of the central butter warehouses. It is estimated that 99.5 percent of A. and P. butter sales are sold under its own exclusive company brands.

As the A. and P. has grown in size, its butter-handling facilities, both as to space and equipment, have increased apace, and its volume of butter sales has made possible the maintenance of a large direct-buying force and the establishment of a modern laboratory for quality control.

The second largest chain in volume of sales in 1936 was Safeway Stores with 3,370 stores, a gain of nearly 20 percent over 1930. Along with its continued expansion, most of which came between 1929 and 1931, Safeway had increased its number of creameries from two to six and had acquired its own condensery. The total volume of butter sold by Safeway is not known, but, since California creameries are usually quite large, Safeway probably now produces a significant part of its butter. Third in volume of sales and second in number of stores, Kroger had 4,250 retail units in 1936, a marked decline (24 percent) from the peak reached in 1930.[56] Kroger was still operating its milk units and in 1937 began operation of its own evaporated milk plant.

First National Stores, fourth in volume of sales and fifth in number of stores (2,556) in 1936, had experienced a decline of about 6 percent in number of retail units since its peak was reached in 1933. It still had its creameries in the Midwest and in 1937 leased a Wisconsin evaporated milk plant. American Stores, a close fifth in volume of sales and fourth in number of stores (a 7 percent gain over 1930 with 2,826) in 1936, now had its own produce company to act as the chain organization's purchasing agent at St. Paul, Minn., buying butter, cheese and other dairy and poultry products, and had continued to operate its evaporated milk plant.

Around 1934 the three chain stores largest in the volume of but-

[54]About 95 percent of A. and P.'s packaged butter is printed in its own warehouses to be sold under its exclusive brands of "Silverbrook" and "Sunnyfield." The remaining 5 percent is printed by local creameries selling to the A. and P.

[55]The divisions are Southern, Eastern, New England, Central, Midwestern, Central Western and West (Los Angeles and Seattle).

[56]This decline in numbers was brought about by a considerable retrenchment and the closing of unprofitable units and duplicating stores (caused by purchases of other chains), which helped to raise the average annual profit per store from $347 in 1930 to $1,106 in 1933.

ter sold were A. and P., Kroger and First National, their total sales being 231 million pounds or 13.6 percent of United States butter. Only 1.3 million pounds were produced in their own factories, 0.6 percent of sales. Since A. and P. sold about 10 percent of the nation's butter in that year, Kroger and First National sold between them about 3.6 percent. If the volume of Safeway, American Stores and National Tea Co. are added to the three largest chains, it is found that these six chains sold 295.5 million pounds of butter, 17.4 percent of total production (12-a).

In 1935 as in 1929, combined sales of the five largest chains amounted to almost 25 percent of the total business done in all grocery and combination stores, as reported by the United States Census of Distribution (15-a). Of the five, only Safeway and First National have made an attempt to manufacture in their own factories a significant amount of their final volume of butter sales. But all, it will be noted, now produce evaporated milk to an important extent.[57]

In 1936 six cooperative sales agencies, according to Fetrow (24-c), were representing "creameries manufacturing approximately 20 percent of the total output of creamery butter in the United States." These agencies were Land O'Lakes, Challenge, United Dairymen, Interstate, Dairy and Poultry Cooperatives, Inc., and Midwest Producers' Creameries, Inc. The latter two, not heretofore mentioned, are considered below. "It is estimated that cooperative dairy-marketing associations handled in 1934 approximately 36 percent of the creamery butter manufactured in the United States" (24-d).[58]

From its peak of 101 million pounds in 1930, Land O'Lakes had suffered a decline of 26.7 percent by the end of 1936, during which year the cooperative sold 74 million pounds. In 1931, 1932 and 1933, Land O'Lakes sold 98 million pounds, while in 1934 there was a sharp drop in volume to 85 million pounds, followed by a further drop to 79 million pounds in 1935. As a percentage of total United States creamery butter production this represents a decline from 6.3 percent in 1930 to 4.8 percent in 1936.

An important part of this recent decline has been brought about, it is believed, by a steadily narrowing spread between the prices of

[57]Whitehouse Milk Co., a subsidiary of A. and P., is the third largest manufacturer of evaporated milk in the country (15-b). The manufacture of evaporated milk has probably attracted the chain stores for two reasons: (1) The possible economies of large-scale production are much greater than for butter and (2) the concentration of control over the evaporated milk industry is much greater than for butter so that company manufacture is an alternative to paying a price largely dictated by the manufacturers of the nationally advertised brands of evaporated milk and greatly improves the chains' bargaining power.

[58]Fetrow included in this figure not only "federations, large-scale centralized organizations, sales agencies and independent service-rendering associations" but also "independent local associations" (24-e), the latter as a rule selling through the less direct wholesaler route, although the other types of organization presumably market most of their product direct to retail outlets. It seems to the writer that most of these "independent local associations" are primarily cooperative **manufacturing** associations, and do not "market" their butter in the same sense as do the large-scale sales agencies, since their management is chiefly equipped for production and not for selling. To call them "dairy-marketing" associations is therefore misleading unless this very broad use of the term "marketing" is more explicitly called to the attention of the reader than is done in this bulletin.

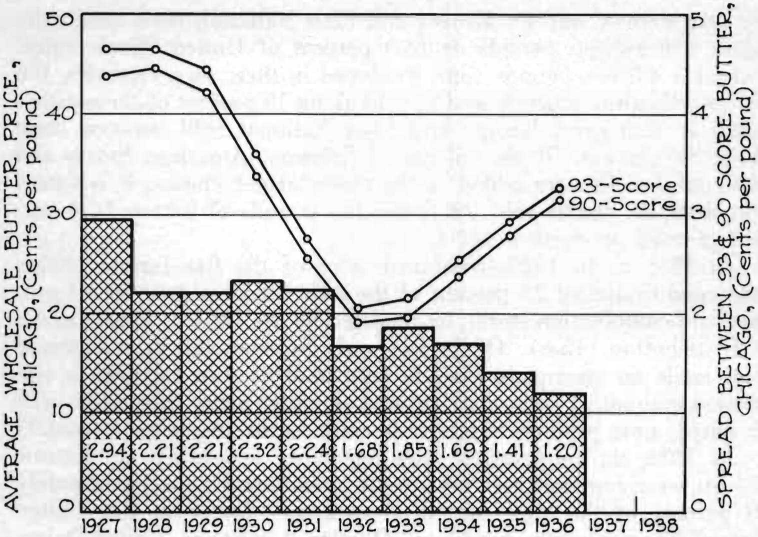

Fig. 2. Average wholesale prices and spread between prices of 93-score and 90-score butter, Chicago, 1927-36. (Based on table II, appendix.)

93-score butter and the lower grades since 1927 (as roughly indicated by fig. 2 and appendix table II)—partly the result of depressed economic conditions, but apparently still more due to an ever-increasing proportion of high-quality butter (92-93 score) during this period which could be moved only at an ever-lower price as lower-income groups were reached. For while the demand of a small part of the consuming population for 92 or 93-score butter is highly inelastic, if the quantity offered for sale increases very much—as it apparently has since the War—a point is probably soon reached where the differential must be narrowed rather rapidly to attract buyers in less favorable economic circumstances. Certainly such less-wealthy consumers are even more sensitive to a change in the "spread" between the prices of 93-score and a lower grade of *butter* than they are to the relationship between the prices of *oleomargarine* and butter, hence the less-wealthy group's demand for the *highest* grade of butter is sure to be highly elastic. The fact that the differential narrowed in 1927-29 and 1933-36 as well as 1930-32 indicates the greater importance of the supply than the demand factor in the downward trend in the spread between 93 and 90-score butter from 2.9 cents to 1.2 cents between 1927 and 1936. In the face of this increased amount of high-quality butter, Land O'Lakes' "quality appeal" was made less distinctive with its limited high-price market apparently satiated.[59] Furthermore, some of its member-producers were probably less able or willing to meet the increased costs and care incident

[59] Supra, pp. 334-35.

to the production and delivery of cream for a 93-score product as a result of receiving a lower premium than they had formerly enjoyed.

Another factor of some importance in the past several years has been the substitution of their own private brands of 93-score butter by chain-store organizations. Thus, the Economy Grocery Stores, a chain of 412 stores (1936) in Greater Boston, inaugurated in the fall of 1936 its own "Ecco 93-score" butter. It has been pushing this hard in its advertisements, with major emphasis on the "93-score" government grade, which appears in very large letters on the package. This product has been sold retail alongside of Land O'Lakes butter, which is also "93-score" but not nearly so prominently marked thus on the package, at the same price or at a cent less per pound. There are certain important advantages to a chain-store organization in having its own brand of butter, since it can thereby have an independent price policy made possible by the opportunity of "shopping the market" for the desired grade of butter. Furthermore, if it buys from a manufacturer whose brand reaches all the way to the consumer and who strives to develop a consumers' preference for its product, as has the Land O'Lakes organization, the latter is in a position to dictate to some extent the retailing chain's price policy.

Between 1929 and 1936 Land O'Lakes membership dropped from 470 to 400 creameries. This loss of creameries is probably due to the fact that many creameries were able to receive a higher *net* price by selling to other outlets, especially to chain-store organizations. Now that the Land O'Lakes organization has brought about considerably improved quality and has educated farmers and creamery operators how to maintain such quality, it has frequently happened that other outlets open up for this high-quality product—once developed—which offer the prospect of higher net returns. This result is probably partly due to the uneconomically large overhead which Land O'Lakes must have had to maintain because of its efforts to distribute direct to the retailer through its own sales branches. Even though the final sale brought a definite premium, the member creamery's *net* returns may, for this reason, actually have been less than if sold to alternative outlets. It seems probable that by 1936 Land O'Lakes had carried its direct-distribution system to a point which was uneconomical considering its volume of business, lack of sufficient diversification and large number of scattered outlets.

In 1936, as already mentioned, Land O'Lakes arranged for Armour and Co. to distribute "Land O'Lakes" dairy and poultry products in territories not reached by the cooperative's own distributive system. "The Land O'Lakes organization apparently intends to maintain its present branches and to sell as much of its butter as possible under its own brand. It has, however, apparently given up the idea of maintaining its own brands on all its products right through to the retailer or consumer and it is again utilizing in part a private distributional agency. It will be recalled that private distributional agencies marketed practically all the butter of Minnesota creameries before Land O'Lakes was organized to take over the job for its member plants" (50-c). Thus, after reaching a peak of 95-percent-direct distribution in 1933,[60] Land O'Lakes was again turning to a private agency for aid in distributing its product, although merely to another direct-marketing organization, not to the old-line wholesaler-jobber of the past.

Late in 1934 the National Cheese Producers' Federation,[61] a large cooperative cheese-marketing agency, became a member of Land O'Lakes Creameries, and most of its cheese is now marketed through this organization. In 1936 Land O'Lakes sold 24 million pounds of cheese. Its poultry, turkey and egg departments also had become of importance since 1929 or 1930.

In 1936 Challenge had 18 member-associations west of the Rockies. In 1935 it handled 31 million pounds of butter, as compared with 36 million in its peak year, 1931, a decline of over 14 percent. It was selling, however, more butter in Los Angeles than all the other "jobbers" combined and had distributing plants in 10 California cities and Salt Lake City (21). The association also was marketing cheese, casein, milk powder, fluid and evaporated milk. The United Dairymen's Association marketed 15 million pounds of butter in 1935 for its dozen dairy cooperatives in Washington and Idaho and also processed the surplus milk of the Seattle fluid-milk cooperative organization. The Association acts as a jobber in Seattle and Tacoma and sells at wholesale in California, Alaska and elsewhere (24-c). Interstate Associated Creameries was marketing for eight cooperative creameries and one milk-marketing organization in 1936. Its sales in 1935 consisted of 4 million pounds of butter and nearly a million pounds of cheese.

These four regional sales agencies, which had divided their sales territory so well under the encouragement of the Farm Board in 1930, were, however, again invading one another's territory in 1937. Land O'Lakes was reported to be soliciting outlets in California, the Pacific agencies working independently in the East and up and down the whole Pacific coast once more.

Dairy and Poultry Cooperatives, Inc. has a membership of about 20 creameries, including a number of cooperatives of the centralizer type, in the central west. It acts solely as a sales agent, with its principal office in Chicago and a branch office in New York. This organization grew out of a sales agency formed to sell the product of Farmers' Equity and Farmers' Union creameries of Nebraska, South Dakota and Ohio.

Midwest Producers' Creameries was formed in 1932 and hence is one of the newest regional sales agencies. It acts as sales agent

[60] Supra, p. 341.
[61] Name changed to Wisconsin Cheese Producer's Federation Cooperative in 1935.

for 20 creameries in Michigan, Indiana, Illinois and Tennessee, selling in 1936 over 24 million pounds. The association seeks advantageous outlets for the products of member creameries and arranges terms of sale which are submitted for acceptance or rejection by the member creameries. Several member creameries, however, have developed their own direct outlets to consumers or retailers, and all are free to do so, for Midwest's function is as much that of services as of sales. These services include supervision of production methods, laboratory analysis, purchase of supplies and equipment, and financial advice, and are performed at a flat charge of ⅛ cent per pound.

One of the most important cooperative butter-marketing organizations of the country is Iowa State Brand Creameries, Inc. In 1915 the Iowa state legislature enacted a law authorizing creameries manufacturing 93-score butter or better to use the Iowa State Brand in selling their output. But it was 1927 before a small group of creameries licensed to use this brand organized into the Iowa State Brand Creameries by incorporating under the state's General Corporation Law. This organization is a cooperative stock company with the stock owned by member creameries, not by individuals. Although membership is not confined to local cooperative associations, all but a few are cooperative. Member creameries may buy one or more shares of stock with the privilege to vote according to the number of shares held, although it is not necessary for a creamery to own stock in order to do business with the company.[62] At present there are 68 member creameries in Iowa and 4 in Minnesota. The volume of butter sales reached 19.7 million pounds in 1937-38, of which about 60 percent was print sales. Cheese sales reached $67,000 and creamery supplies (exclusive of butter tubs) $83,000 in the same year.

Butter is not purchased on a pooling basis but rather according to an agreed differential based on the Chicago or New York quotations. Although creameries are not under contract with the selling organization, only one stockholding member has been lost since the organization's beginning. Non-member business is of considerable importance, although non-member creameries fail to share in the organization's dividends or earnings.

In spite of certain points of difference from the usual cooperative, all the undistributed balance derived from efficient marketing of the butter is returned to the member creameries in the form of patronage dividends, based on the amount of butter sold to and cheese and creamery supplies purchased from the association, so that the organization is basically cooperative.

The butter is printed, wrapped and marketed from the main office

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[62]A brief history of the Iowa State Brand Creameries appeared in the National Butter and Cheese Journal (25) in 1936. Later data were kindly furnished by R. O. Storvick, manager.

at Mason City where a fully-owned, debt-free main plant is located. The butter is marketed from Mason City by a salesman who is continually making contacts to establish good markets in the East. The State Brand association has been able to conduct its business successfully without any financial support from either federal or state funds. All creameries in Iowa licensed to use the state brand are regularly supervised by the Iowa Butter Control, a committee of five members, including representatives of the State Department of Agriculture, the State Dairy Association, the State Creamery Operators' Association and Iowa State College. Through rigid creamery supervision, butter inspection and laboratory check-up, quality has been carefully maintained.[63]

This whole movement toward cooperative large-scale selling has been well summarized by Laughlin and Stitts (28) as follows: "Changes in marketing channels, with *notable shifts of butter buying into the hands of large operators* [during recent years], have directed attention to the advantage of having large volumes of standardized products for sale. Such increased volume has been provided either by increased size of manufacturing unit or through centralized selling on the part of a number of units" (my italics).

The beginnings of the movement toward government grading at or near the point of production have already been noted.[64] This country grading service, as we have seen, was first undertaken at Minneapolis and Duluth in a cooperative arrangement between the United States Department of Agriculture and Land O'Lakes Creameries. It has since been extended to both cooperative and private butter organizations located at Mankato and St. Paul, Minn., and at Dubuque and Mason City, Iowa. "At these [six] points, and inclusive of a grading station at Chicago, there were graded during the year ended June 30, [1937] . . . 124,417,877 pounds of butter. During the past 12 years the amount of butter graded each year has exceeded 60,000,000 pounds" (57).

During the same year 1936-37 a total of 261,283,157 pounds of butter was graded at all points by government graders, or about 17 percent of the total United States creamery butter production. Hence, by 1937, almost as much butter was graded at country points (48.4 percent) as in the central markets. "The bulk of the butter [graded] was 92-score or higher, and much of it was packaged with certificates of quality that carried its score or grade through to the consumer."

In 1918 the largest butter marketing company had a volume of

[63] Another cooperative marketing organization of some importance in Iowa is the South Iowa Cooperative Creameries Association, formed in 1934 with 14 charter-member creameries. A plant for concentrating and marketing the members' butter was built at Keosauqua in 1935, in which year 5 million pounds (mostly 92-score) were handled. Most of the Association's butter is printed and concentrated at Keosauqua and then marketed in three principal markets, New York, Chicago and San Francisco. This organization is strictly cooperative (30).

[64] Supra, p. 331.

67 million pounds,[65] two others above 50 million, while the fourth in rank had only 26 million pounds. At the present time Swift and Armour distribute 120-140 million pounds; Beatrice, National Dairy Products and Borden, between 85 and 100 million pounds; Land O'Lakes (cooperative) and Fairmont 70-80 million; with Blue Valley, Cudahy, Wilson, Challenge (cooperative), Dairy and Poultry Cooperative, and Midwest (cooperative) between 25 and 40 million pounds. Besides these manufacturer-distributors, at least one butter *wholesaling* house is known to handle more than 25 million pounds —H. C. Christians Company with 30 million pounds (53-c), of which only a relatively small part is manufactured by the company. At least three other butter wholesale houses[66] probably handle more than 25 million pounds. These three butter wholesalers, the largest in 1934 according to the federal trade commission (62-b), handled 83.3 million pounds in that year, 4.9 percent of the year's production. The 10 largest wholesalers handled only 135.7 million pounds (8.0 percent of total production), an average volume of only 13.6 million pounds.

The A. and P. handles through its own direct-buying facilities around 60-65 million pounds, after eliminating centralizer and packer butter from its total butter sales to avoid double-counting. Probably one or more other chain-store organizations also handles by direct-buying (after similar adjustment for centralizer and packer butter) 25-40 million pounds.

There are, then, a minimum of 18 to 20 wholesaling organizations (of which three or four are cooperative) handling over 25 million pounds of butter between factory and retailer (or beyond) at present compared with six in 1918, while six (one cooperative) exceed in volume of distribution the largest distributor of that time. The shift to larger operators in butter is, then, a fact. But paradoxical though it may seem at first, in spite of large increases in volume by the meat packers, Beatrice, Blue Valley and Fairmont, and the rise apace of National Dairy Products, Borden and large-scale cooperatives since 1918, it is probable that only one company (Swift) now distributes any larger share (8.4 percent) of total creamery butter production than did Swift (8.2 percent) in that year. The reason, of course, is the enormous increase in creamery butter production 1918-37 when production doubled. This, however, was not a net increase since farm butter production fell from 710 million in 1918 to 562 million pounds in 1933, the last year reported. In 1935 Swift's volume was 8.4 percent of total butter production, only a slight increase over its share in 1918. Armour showed a much greater relative gain—from 6.2 to 7.3 percent and from third to second place—in the same period. Beatrice's percentage fell from 7.5 to 5.8

[65] Swift and Company, table 1, supra, p. 326.

[66] Miles Friedman, Inc.; L. D. Schreiber and Company; and Peter Fox Sons Company.

percent. Blue Valley, Cudahy and Wilson also showed relative declines. In other words, except for Swift and Armour, the volume of those butter distributors leading in 1918 and today did not increase so rapidly as total production of creamery butter. Today 100 million pounds of butter represents not more than 6 percent of the total production, compared with about 12 percent in 1918.

In 1918 the four largest companies distributed 25.1 percent of total United States creamery butter; the six largest, 30.8 percent. In terms of the present total production of the United States, the four largest companies now distribute about 26 percent, the six largest organizations (including cooperatives) 36-38 percent, the eight largest around 46-48 percent and the largest 18-20 organizations between 60 and 65 percent. The classes for 4, 6 and 8 companies probably include relatively little duplication, but that for the 18-20 companies undoubtedly does, giving too high a percentage in the last group. Concentration in the butter industry is much less, therefore, than for other manufactured dairy products.[67] Though the butter industry has been characterized by an increased number of large operators, there has not been a very marked tendency toward an increased concentration in the hands of a few companies since 1918, although the six largest—especially the two leading meat packers—now hold a somewhat stronger position than did the same number of top-ranking butter distributors 20 years ago.

In 1935 another census of wholesale distribution was taken, enabling us to have some actual quantitative measurement of the changes in marketing channels, at least since 1929. These data are shown in table 6, with the 1929 percentages brought forward from table 4 to facilitate a comparison (table 6, last column).

In 1935 the amount of butter moving through the less direct channel via wholesalers and jobbers had fallen from 39.6 percent to 35.9 percent, a decline of almost 10 percent. On the other hand, the proportion of butter sales moving to the retailer or large-scale user either direct or through the manufacturer's own branches had increased from 47.6 to 54.7 percent. There was an important shift, however, within the more direct marketing group. For sales through manufacturers' wholesale branches fell from 22.5 to 19.2 percent, while sales direct to retailer increased from 22.8 to 30.5 percent and direct to large-scale users from 2.6 to 5.0 percent. Put another way, of direct marketings (as far as the retailer or industrial consumer) in 1929, 47.2 percent moved via the manufacturer's wholesale branches, while in 1935, only 35.1 percent so moved. An important factor in this decline was, no doubt, the elimination by the meat packers of a considerable proportion of their wholesale branch houses, through which not only meats but also produce was handled, during the past few years, and the substitution of truck-routes cover-

[67]Three companies distribute 60 percent of the nation's cheese and six companies 65 percent of the canned milk (7-c).

TABLE 6. DISTRIBUTION OF BUTTER SALES FROM MANUFACTURING PLANTS, 1935*

Channels of primary distribution	Amount of net sales (000)	Percent total net sales ***	Percent distributed sales ***	No. of plants: Total	No. of plants: Selling exclusively	Percent distributed sales* (1929)
Total for industry	$761,134	100.0		3408		100.0
To own wholesale branches	121,806	16.0	19.2	232	38	22.5
To industrial and other large users	31,944	4.2	5.0	368	14	2.6
To wholesalers and jobbers**	228,322	30.0	35.9	2082	299	39.6
To own retail stores	10,248	1.3	1.6	217	19	2.3
To retailers (incl. chains)	193,790	25.5	30.5	2303	322	22.8
To household consumers	49,571	6.5	7.8	1889	39	10.2
Total distributed sales	635,691	83.5	100.0			100.0
Transfers to other plants in same company	85,045	11.2		307	32	
Sales not allocated to usual channels	40,398	5.3		180	116	
Sales negotiated through agents, brokers and commission houses**	56,853	7.5		576	23	

*Census of Business, Distribution of Manufacturers' Sales, U. S. Dept. of Commerce, Bureau of the Census, April 1937, table 1, p. 34 (68).

**Wholesalers and jobbers take title to the goods, buying and selling on their own account; agents, brokers and commission houses act in a purely agential way, performing the selling function for others on a commission basis without taking title to the goods.

***"Distributed sales" are "Total net sales" after elimination of inter-plant transfers and "Sales not allocated to usual channels."

ing territories far wider than were possible before improved highways and trucks were available. Large centralized butter companies probably did the same thing to some extent. Besides the transportation factor, the increased importance of chain-stores has taken a considerable volume of produce (and, for the packers, meats as well) away from the butter companies' sales branch houses, the products now moving direct from these companies to the chain organizations' branches. For these two important reasons, manufacturers have found it advisable to close down those branches the volume of which has been hardest hit.

The proportion of butter sales moving to manufacturers' own retail stores fell from 2.3 to 1.6 percent in the 6-year period. This is, perhaps, a pretty fair measure of how much of their butter the chain-stores produce. If so, it corroborates other evidence already presented that chain-stores manufacture only a very small part of their butter. It also seems to indicate a trend toward even less integration in this direction so far as butter is concerned. The amount of butter passing direct to the household consumer fell from 10.2 to 7.8 percent of butter sales during the same period.

The proportion of total net sales (including interplant sales and sales outside the usual channels) negotiated through agents, brokers and commission houses was 7.5 percent in 1935. In terms of total distributed sales (with interplant and extraordinary sales excluded) this should be around 6.5 percent (83.5 percent of 7.5 percent). However, no information is available to distribute this percentage according to the importance of middlemen of an agential character among the various more important marketing channels.

Another interesting comparison between tables 4 and 6 is the number of plants selling *exclusively* through the several channels of distribution in 1929 and 1935. In 1929 there were 76 plants selling exclusively through their own branches, in 1935 only 38. The number selling exclusively to large-scale users remained unchanged, and the number to wholesalers practically so. The number of plants selling exclusively to their own retail stores dropped from 31 to 19, and the number so selling to household consumers from 76 to 39. The number of plants of which all sales of butter went only to retailers direct increased from 287 in 1929 to 322 in 1935. The total number selling exclusively through some one channel was 775 in 1929 and 731 in 1935.

In fig. 3 is presented the latest chart of marketing channels available at the present time, as based on the data just discussed.

More detailed information has recently become available (62-d) revealing the true complexity of sources of supply and types of outlets of the leading dairy corporations, meat packers, cooperative marketing agencies and butter wholesalers. In 1934-35, of butter *purchased* by the 12 leading dairy corporations (excluding packers), 20.4 percent came from other (largely local) butter manufacturers, 32.7 percent from marketing cooperatives, 26.1 percent from wholesalers and 19.1 percent through brokers and the remainder from miscellaneous sources. Of their butter *sales* (including butter produced in their own plants as well as that purchased from other manufacturers), 22.0 percent was sold to chain stores, 38.7 percent to "route customers" (which includes homes, institutions, large-scale users and independent retail groceries), 16.7 percent to butter wholesale houses, 10.3 percent to brokers and 12.3 percent divided among a number of other outlets (7-d).

The 10 meat packers most important in dairy products obtained 71.4 percent of their butter *purchases* from other (largely local) butter manufacturers, 15.7 percent from marketing cooperatives, 11.7 percent from brokers and 1.3 percent from butter wholesalers. Of the sales outlets for the packers' butter, by far the most important were its "route customers" (chiefly independent retail grocers, but also including institutions and other large-scale users), which took 78.1 percent. Chain-store organizations took 8.0 percent, brokers 2.8 percent, wholesalers 0.2 percent and several other outlets 10.9 percent (40-e).

These data indicate that the meat packers were much more completely integrated from factory to retailer than the large dairy corporations, both on the buying and selling sides of their business. This is shown by the fact that the 12 dairy corporations obtained 45.1 percent of their butter *purchases* through wholesalers and brokers, while the packers received only 13.0 percent through such

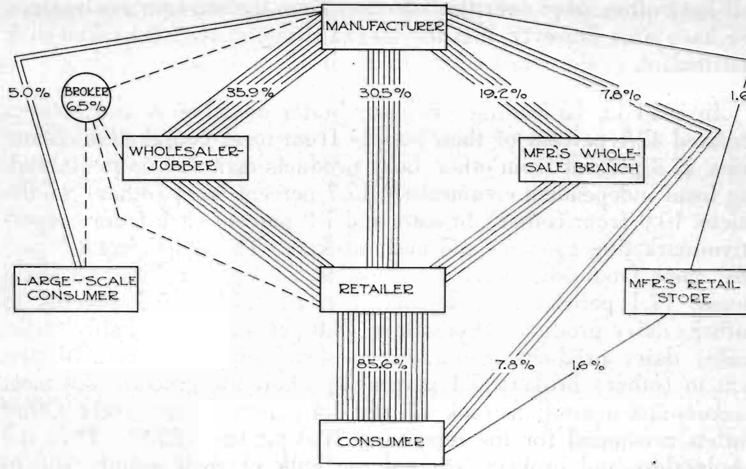

Fig. 3. Primary channels of butter distribution, 1935. (Based on table 6.)

agencies. As to sales, 28.4 percent of the dairy-corporation butter was sold through wholesalers and brokers, while only 3.2 percent of packer butter moved through these channels. It should be pointed out, however, that the 12 dairy corporations include not only the four largest companies (which, as we have seen, are highly important in butter and are well-integrated from factory to retailer) but also a number of other companies the major business of which is either fluid or evaporated milk. These companies would, therefore, probably not have had sufficient volume of butter to have developed the integrated purchasing or sales departments for butter which the largest butter-marketing corporations have been able to develop.

Virtually all of the butter of the leading cooperative butter-marketing agencies comes, of course, from their own member creameries. Some of the fluid-milk cooperatives, however, buy butter at times through other sources, such as wholesalers and brokers. In 1934-35, eight cooperative milk and milk products marketing associations sold 33.3 percent of their butter to chain stores, 31.1 percent to "route customers" (including homes, large-scale users, and independent retail stores), 13.3 percent to voluntary chains, 6.1 percent to other (probably large-scale) dairy-products companies, 4.0 percent to meat-packers, 3.7 percent through brokers, 0.4 percent through wholesalers, and 8.1 percent to several other outlets. These cooperative agencies made only 4.1 percent of their sales through wholesalers and brokers. The large proportion of their sales direct to chains, institutions and other large-scale butter distributors (60 percent or more), however, did much to free them of the necessity of providing facilities of physical distribution for performing the wholesaling function, since the large-scale distributors to whom they sell have often taken over this function from the old-line wholesalers. We have seen, however, that the largest cooperatives have taken over distribution to the retail stores to a considerable extent (62-e).

In 1934-35, 12 leading wholesale butter distributors and brokers received 42.1 percent of their supply from local cooperative creameries, 27.3 percent from other dairy products manufacturers (including local independent creameries), 12.7 percent from (other) wholesalers, 10.0 from (other) brokers and 1.8 percent each from cooperative marketing agencies and meat packers. The remaining 4.3 percent came from other sources. Of sales, 23.0 percent went to chain stores, 17.1 percent to independent retail stores, 13.2 percent to (other) dairy products wholesalers, 13.0 percent to (probably large-scale) dairy products manufacturers (excluding packers), 10 percent to (other) brokers, 5.1 percent to wholesale grocers, and meat packers and institutions took 4.3 and 4.4 percent, respectively. Other outlets accounted for the remaining 10.0 percent (62-f). Thus the wholesalers and brokers received the bulk of their supply (60-70 percent) from the many unattached local creameries. Most of the rest (22.7 percent) came from other wholesalers and brokers, who in turn got most of their supplies from similar sources. As an ultimate source of the wholesalers' supply, therefore, 75-85 percent came from such local creameries. The wholesalers' chief sales outlets were retail grocery stores or their overhead organizations (40.1 percent), other specialized wholesaling agencies (28.3 percent) and large-scale manufacturer-distributors (17.5 percent).

These data illustrate the extreme complexity of actual marketing channels and reveal the oversimplified picture which figs. 1 and 3 (and the Census data upon which they are based) present. These charts fail to distinguish between local manufacturers and large-scale manufacturer-distributors (including chain-store organizations), as already pointed out. They therefore overlook the place that wholesalers and brokers play in making contact between the two types of manufacturers. The Census data, however, do purport to have national coverage, which the detailed data just presented do not. Furthermore, the Census data do give at two different dates (1930 and 1935) figures which are presumably comparable enough to reveal clearly the *trend* toward more direct marketing of butter which has been increasingly important since 1918. Finally, figs. 1 and 3 gain in simplicity, through bringing the most important channels of distribution into sharper relief, what they lose in absolute accuracy by omitting some of the minor inter-agency relationships.

It is considered beyond the scope of this study to consider in detail the problem of butter prices. However, one cannot close a discussion of the marked shift to more direct marketing channels for butter without mentioning the important effect this has had on the volume of wholesale trading on the large terminal markets. Since prices are established by this type of trading and are extensively used throughout the country as a basis of trading, Davis (72) has raised the question whether the volume is adequate to warrant quoting wholesale prices. Open market sales of butter have been gradually declining for two chief reasons: 1. The development of *direct selling and direct buying,* which, as we have seen, has reduced the volume of wholesale trading; 2. "the tendency toward premium sales and contracts of various kinds whereby buyers in central markets pay more than the quoted prices . . . Such sales do not represent open trading . . . buyers and sellers having agreed . . . [only] that [the selling price] shall bear an agreed relationship to the recognized market quotation" (72). As the present study has shown, the first factor is largely a post-war development. The second, however, is not, as implied in the reference quoted, a very recent development,[68] although the common and growing use of premium sales over a long period of years has certainly made the volume of sales on the open market a very small and decreasing part of the whole. Mr. Davis' observation concerning premium sales is, nevertheless, well worth quoting, because of his important position in charge of the market news service work of the Department of Agriculture:

"Shippers should realize that under most conditions the paying of premiums is not possible if the basic price upon which settlement is made properly reflects actual market value. Premium sales are possible because quotations at present include principally open trading, and thus a large proportion of total receipts is eliminated.

"Reporting of wholesale prices on the basis of open sales cannot be continued by the Bureau with any degree of satisfaction if the volume of wholesale trading continues to decrease. Either the present policy of price reporting must be modified to permit publication of nominal prices with the element of judgment as a major consideration, or some other type of transaction will need to be used as a basis for quoted prices. Any change along this line would necessarily mean that the industry would have to adapt itself to a new basis."

The important effect of more direct marketing channels, coupled with the practice of premium sales, on the accuracy of the present wholesale quotations which form the basis of butter prices throughout the country should now clearly be seen. A study of the Chicago butter market[69] is now in progress, with the solution of this perplexing problem as its objective.

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[68]As indicated supra, pp. 335-36, this was considered as perplexing a problem in 1896 as today.

[69]By Gordon W. Sprague, of the Division of Dairy and Poultry Products, Bureau of Agricultural Economics.

SUMMARY

A study of the years 1930-37 reveals that, in spite of a continued increase in direct marketing of butter, they were most important as a period of retrenchment and consolidation of past gains. Butter was probably the hardest hit of the leading dairy products, in spite of which, producer and distributor interests were never able to agree on either a marketing agreement or a production-control program as provided for by the Agricultural Adjustment Act. Government aid was, therefore, limited to considerable purchases of butter for relief purposes, with a slightly enhanced price as a probable result.

The large dairy corporations found their produce line—especially butter and eggs—a heavy burden during the depression and had to depend on ice cream, cold storage and other miscellaneous products for the greater part of their profits during the worst years—excellent testimony as to the advantages of diversification. Borden found its produce division so unprofitable that most of its manufacturing units were liquidated. Of these large corporations only National Dairy Products showed further expansion after 1931, acquiring some 40 additional concerns—none of importance in butter, however. In 1935 the four largest dairy corporations handled 39 percent of the nation's total value of dairy products.

While there has been little change in the relative importance of the leading meat packers in recent years, Armour has been putting increasing emphasis on its purchases of butter, while eliminating unprofitable company-owned produce plants. Swift, on the other hand, has been increasing its number of plants, having always produced more of its butter volume than Armour. The packers' produce line, too, has been reported to be a "depression liability." Swift and Armour now rank next to National Dairy Products and Borden in volume of dairy products sold, although their produce business is merely a "sideline."

A. and P. has in recent years sold from 12 to 9 percent of the country's butter to the final consumer and is undoubtedly the largest butter-distributing agency in the United States. About 40 percent of its volume is bought by its own direct-country-buying organization, the remainder from centralizers and packers. It still *manufactures* well under 1 percent of its butter sales. Safeway Stores has increased its number of owned creameries from two to six since 1930 so that it probably produces a significant proportion of its total sales. The other three leading chains have shown no further integration in this direction, although all have continued to improve their direct-buying facilities for butter, and all five now manufacture their own evaporated milk.

The two largest cooperative sales agencies have lost considerable volume since 1930—Land O'Lakes, 27 percent, and Challenge, 14 percent. Leading factors in their decline appear to be: a narrowing of the favorable spread between the highest-quality butter and lower grades; the less *distinctive* appeal of "quality" as the volume of high-quality (92-93-score) butter has steadily increased; substitution of company "93-score" brands by chain stores for federation butter: and loss of creameries because of the high overhead of cooperative distributing facilities and because of higher prices offered for high-quality butter by other outlets after the cooperatives had carried through the costly educational campaign which made increased quality possible. In 1936 Land O'Lakes arranged for Armour to distribute part of its product, having abandoned the attempt at complete direct-distribution through its own sales agencies.

By 1934 six cooperative regional sales agencies were distributing an estimated 20 percent of total creamery butter in the United States. A seventh producers' marketing organization, cooperative in practice if not completely so in technical detail, is Iowa State Brand Creameries, which has grown rapidly since formed in 1927 and has contributed much to a higher quality butter. By 1937 government grading at central country points—inaugurated as an arrangement with cooperatives but later extended to private concerns—had increased until it was within a small percentage of equaling the volume of federal grading on the central markets.

While large-scale operators (those over 25 million pounds' volume) have increased in number five-fold since 1918, only one company distributes as large a proportion of total production today as the leading company at that time. With a minimum of 18-20 companies handling 25 million pounds or more for a total proportion of American creamery butter of 60-65 percent—the four largest organizations selling about 26 percent—concentration in the butter industry has apparently increased relatively little since the War and is today far less than in either cheese or condensed milk.

Between 1929 and 1935 there was a further decline in the importance of the wholesaler-jobber channel from 39.6 to 35.9 percent of all butter. While butter moving through integrated channels to the retailer increased from 47.6 to 54.7 percent, there was an important shift within this group from "manufacturers' wholesale branches" to a "direct-to-retailer" movement. The indication here is that there has been a decline in the number of sales branches in recent years, and such has certainly been the case for the packers and centralizers, many of whose branch facilities have become unnecessary with improved roads and trucks and the increasing use of chain-store facilities.

Finally, in recent years the accuracy of the present butter-pricing mechanism has been questioned more than ever before. The development of direct-buying and direct-selling have so reduced the volume of wholesale trading that—combined with the very old problem of an almost universal "premium" over the quotation—a drastic change in the basis of quotations or price-reporting policy will probably have to result if the volume of wholesale trading on the central markets continues to fall.

ECONOMIC APPRAISAL

As we have seen, the important trends in butter marketing during the post-war period were the rapidly increasing total volume of butter available for distribution, with production on farms forming an ever-smaller proportion of the whole; the development of improved quality in butter and of consumers' preferences therefor; the increasing amount of butter sold in package, as opposed to bulk, form; the tendency toward grading at point of production instead of on the terminal market; and finally, and most important, the trend toward an increased number of large operators and more direct marketing channels.

While the chief marketing channel for butter in 1918 included a wholesaler and a jobber, the pressure toward more direct marketing in the '20's frequently brought the consolidation of the wholesaler and jobber into the same organization and the elimination of a considerable number of wholesale houses, either by merger or failure. The merchandising programs of cooperative marketing associations and large centralized companies (including packers) diverted part of the butter formerly sent to terminal markets direct to smaller markets. Many of these organizations established in terminal markets their own branches for selling direct to retailers. Direct-buying in the country by chain-store organizations which formerly depended upon terminal market wholesalers for their supplies was another important factor. Mergers and consolidations of local concerns resulted in a number of large organizations with highly developed distribution systems within which butter and other products passed direct to the retailer. All these forces have worked to make the direct marketing of butter, through integration from manufacturer to retailer, the dominant channel of distribution today. In spite of the elimination of one link in the more roundabout channel by combination of wholesaler and jobber, the wholesaler-jobber has been relegated to a position of secondary importance, handling only 36 percent of butter sales in 1935. In the same year about 55 percent moved direct to retailer or large-scale user, and the remaining 9 percent was integrated all the way to the ultimate household consumer.

What have been the economic forces which brought about this very marked trend toward more direct marketing of butter? Since many of the economic forces leading to more direct marketing and increasing integration in distribution are basically the same for *all* consumers' goods—especially those forces associated with (a) large size and financial resources and (b) a standardized product[70]—it

[70] Where the factor of perishability—either through physical deterioration or change of fashion—is important (e. g., soda crackers or ladies' hats), it usually brings about more direct distribution; similarly, where the unit of sale is large and repair services important, as for such durable consumers' goods as automobiles and radios. Here, however, our purpose is merely to develop an analogy between non-agricultural manufactured goods in general and butter, which is relatively non-perishable, non-durable and the sale of which is in small units. Hence an exhaustive consideration of such more specialized factors in bringing about more direct distribution in industry is beyond the scope of this study.

will be well to examine them first with regard to manufactured goods and then proceed to test their applicability to a more recently developed field, agricultural products, with special attention to butter.

Direct marketing came earliest in manufactured (non-agricultural) products.[71] The general trend toward large-scale production, with its resultant demand for large markets and with relatively keen competition in those markets, began many years ago to force manufacturers to exercise a more direct control over their product. As companies grew in size and financial power, their management turned more and more to market control. Increasing importance of product differentiation and branding brought more and more dissatisfaction with prevailing methods and channels of distribution as carried on by independent jobbers, who were often unable or unwilling—because they handled many different products or brands, including, perhaps, some of their own—to promote the sale of the manufacturers' product in sufficient volume. As a result the function of demand creation was taken over by many large manufacturers. As chain-store organizations developed, offering very large outlets, direct selling became more feasible, such selling having developed earliest in those industries where the unit of sale was large. Direct selling was expected to give better control over quality of service, general policy and prices than could be obtained through the jobber. Once demand creation was taken over, only the work of physical distribution and some phases of risk-bearing and financing were left for the wholesaler. But even these were gradually encroached upon as manufacturers' financial resources grew large and they sought to relieve themselves of dependence on middlemen for financial assistance, either direct or indirect, by duplicating the jobber's facilities through the establishment of branch houses, sales agencies and the like, thereby assuming responsibility for the other functions previously performed by the jobber, in the hope of either better promotion and service or lower cost.

At the end of the War the movement toward more direct marketing of agricultural products was just getting under way. By 1922, while this trend toward integration of marketing and production was marked in manufactured goods, Clark (60-a) observed that "the trend has not been so evident in agricultural marketing because the smaller size of the units which buy and sell makes it more difficult, and because the problem of demand creation, which is often a compelling motive leading to the manufacturer's desire to control his market, is not so important with agricultural products. But with the recent development of cooperative marketing of farm products and particularly the development of cooperative federation, the trend is evidenced in agriculture."

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[71]To the writer's knowledge the best treatment of direct marketing—with special application to non-agricultural products—is found in Clark, Fred E., Principles of Marketing (1922), Chap. X ("Direct Marketing of Manufactured Products") and Chap. XIV ("The Elimination of Middlemen"), pp. 168-184 and pp. 271-292, respectively (60).

Not only were the marketing units small and demand creation rather unimportant in agriculture, but grading and standardization were relatively undeveloped both in the central markets and (even more) near the point of production, and the trend toward high-quality farm products was hardly more than started, so that the burden of reinspection and reselection were of necessity performed by the independent wholesaler and jobber. Manufactured products, on the other hand, were usually standardized as to grade and quality by their very process of production so that standardization was not required during the marketing process.

Direct marketing of butter in 1918 was carried on chiefly by organizations most closely approximating the large non-agricultural companies in size, resources and standardization. As we have seen, two types of butter distributors were already using the more integrated channel to an important extent in 1918—the meat packers and several large centralizers. Both of these groups consisted of already large-scale units of great financial resources, which had succeeded in developing well-known brands through their own long-time program of demand creation and market control. The packers were aided, of course, by their elaborate distributing system already provided to perform every function in the marketing of meats, the fuller utilization of which made desirable the production and distribution of butter and other produce items requiring the same assembling, transporting, storing, financing, standardizing and merchandising facilities. The centralizers early assumed an important advantage in their policy of scientific laboratory-control of manufacture which enabled a large volume of a highly standardized, even though not highest-quality, product. This standardization not only facilitated direct marketing, but made the sales-promotion of a branded product more successful. The post-war period saw a continued increase in the absolute importance of these two types of companies and still a further contribution, through their growth, to the trend toward more direct marketing.

The existence and further development of such extensive distributing facilities for butter during the late '20's made diversification economically desirable. The expansion of some of the butter centralizers and other dairy concerns into large dairy corporations was partly, at least, a result of the need of making fuller use of integrated marketing facilities by selling not only increasing volumes of butter but also considerable numbers of related articles. In this way the relatively small units of sale were somewhat offset.

The centralizers were now performing every important marketing function (including financing and even storage) but transportation. The many supplementary and complementary relationships among dairy and poultry products in the use of these distributive facilities were an important factor leading to the rise of these great companies. Apart from this and the promotional urge—about which nothing definite can be said—the factor of increased stability and earning power was probably most important.

The great post-war increase in direct marketing of butter was largely brought about by the development of still other organizations of size, financial strength and standardization comparable with those of the industries in which direct marketing had made early headway. With the rise of the large cooperative sales federations after 1920, considerable numbers of small local production units were united into still other large-scale organizations, which were able to take over the functions of assembly, standardization and quality-improvement, demand creation and selling, and, partly through government aid, financing. Once again, grading and standardization were important factors in making sales-promotion and more integrated marketing possible.

Furthermore, the greatly accelerated growth of the chain-store organizations in the post-war years was an important factor. According to Clark and Weld (61), "Most important of all the advantages which develop from chain organization are those which come through integration, i. e., the combination of the wholesale and retail functions. Through this simplification of functions certain expenses which are usually found in the ordinary wholesaler-to-retailer channel of distribution are eliminated or diminished . . . The tendency of chain stores to buy farm products at shipping points rather than through jobbers or wholesalers is an important example of the combination of wholesale and retail functions." The chain-store organizations have offered a large-scale outlet which has made direct-selling far simpler and more economical and, at the same time, have integrated their direct-buying systems until they are well prepared to perform the functions of assembly, standardization, storage, financing and—chiefly through institutional prestige and price appeal—demand creation.

The movement toward more direct marketing raises a fundamental question concerning the relative economies of specialized independent agencies and integrated organizations. What of the less integrated channel including the *wholesaler* and the *jobber?* The wholesaler's normal function has always been the concentration of butter in the central market by outright purchase in car-lot quantities from local creameries and its sale in smaller lots to jobbers in the same or smaller cities, who disperse the product to suitable retailers. These middlemen are ready to perform important services of assembly, standardization, sale, risk-bearing and financing.[72] They are in close personal touch with the trade where they can offer prompt and frequent deliveries and can watch collections and credit with care.

Specialization and the division of labor led to the establishment

[72]The last two by advancing money to the manufacturer and credit to the retailer, and by maintaining an extensive sales organization.

of these various types of middlemen, and, accordingly, such middlemen are not ordinarily "eliminated," but other agencies are merely substituted to perform the same functions. As Clark (60-b) saw it, "The crux of the middleman problem is not whether the middleman shall be eliminated as a middleman, but rather whether marketing can best be performed by independent specialized marketing agencies or by integrated organizations." When integration takes place, specialization is not abandoned but merely coordinated by the control of a single management. "Independent agencies endeavor to control their activities in such a manner as to profit from their merchandising operations. When these activities are integrated with production, consumption, or, in the case of middlemen, with the operations of other middlemen, the integrating party endeavors to control the operations so as to forward its own primary activities" (60-a).

The choice between direct marketing and the use of independent agencies is basically a matter of cost. The cost must not be so far increased by the process of integration as to offset the advantages gained. If costs are lowered, so much the better, although insofar as the integrated agencies have represented a net addition to, instead of a substitution for, already-existing agencies, with smaller volume per agency as a result, the costs of marketing may have been increased. While we have found evidence of a decrease in the number of old-line wholesale houses—through failure or merger—quantitative data are not available to show what the net balance has been.

Thus the butter wholesaler-jobber's once-customary functions of assembly, standardization, demand creation, financing and risk-bearing all tended to be gradually taken over with the rapid spread of integration during the post-war period. The development and increase in numbers of large-scale organizations made demand creation possible and desirable. The assumption of the burdens of physical distribution, financing and risk-bearing into their own integrated system followed, eliminating any further dependence upon the old-line agencies so far as the large-scale organizations were concerned.

Wholesalers and jobbers of butter, however, still have a significant function to perform—though more limited than formerly—in the marketing process. It has already been pointed out that there is now, and will continue to be, a need for the highly selective services of wholesale-jobbers in best satisfying the peculiar or highly discriminating tastes of relatively small groups of people who fail to conform at all closely to the less discriminating "average" taste to which the packers, centralizers and chain-stores have chiefly appealed. Furthermore, wholesaler-jobbers will have a continued demand for their old functions—including even standardization—from that large number of scattered unfederated local creameries throughout the country which still depend on the longer route for their only outlet.

It remains to be seen if the movement toward direct marketing has been carried further than is economically sound, all costs and gains considered. One large cooperative marketing organization has started using a private distributional agency once more for part of its product, and certain chain stores are reported to be turning back somewhat to open-market purchases of butter again, cutting down correspondingly the scale of their direct country-buying programs. The recent report of the federal trade commission gives annual rates of return on total investment for 10 leading dairy corporations as well as for 12 leading butter wholesalers for the period 1929-34 (62-c). According to the commission's data, the dairy corporations had an average rate of return of 14.1 percent compared with an average *loss* of 0.4 percent for the wholesalers in the 3 years, 1929-31. For 1932-34, however, the wholesalers were in a much better relative position, with a return of 11.0 percent compared with 5.12 percent for the dairy corporations. In 1935 the wholesalers had an average return of 13.9 percent, while the dairy corporations (five companies only) received only 6.83 percent. While the business of the dairy corporations is by no means limited to butter, these data possibly indicate that the butter wholesalers—perhaps now becoming reorganized on a sounder basis—are assuming a somewhat more favorable position relative to the direct-marketing agencies once again. It is possible that the next few years will show a swing of the pendulum back toward the wholesaler. But if so it will probably be toward a type of wholesaler who has better adapted the scope of his functions and services to the requirements of the recent developments in the marketing picture—not merely toward the same unchanged wholesaler of old.

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Author's Note: While the great bulk of the source material listed above was found in Harvard College (Widener) Library, Cambridge, Mass., most of it should be available in any good (agricultural) library. References (1) and (2) and some of the cooperative literature were obtained in the U. S. Dept. of Agr. Library, Washington. Annual reports, pamphlets and letters to stockholders of leading companies, the N. Y. Stk. Exch. Listings and investment and business manuals were obtained in the Corporation Records Room, Baker Library, Grad. Sch. of Bus. Admn., Harvard Univ.

APPENDIX TABLE I. BUTTER: TOTAL PRODUCTION OF FARM AND FACTORY BUTTER.

1917-36 (000 omitted)[a]

Year	Lbs. factory butter[b]	Lbs. farm butter[c]
1917	759,511	908,000
18	818,175	710,000
19	868,125	707,666
1920	863,577	694,803
21	1,054,938	681,803
22	1,153,515	668,803
23	1,242,214	655,803
24	1,356,080	642,803
25	1,361,526	607,877
26	1,451,766	585,952
27	1,496,495	564,026
28	1,487,049	542,064
29	1,597,027	518,300
1930	1,595,231	529,320
31	1,667,452	566,200
32	1,694,132	—
33	1,762,688	562,000[d]
34	1,694,708	—
35	1,632,380	—
36	1,629,407	—

[a] Pirtle, T. R. Dairy Statistics. B. A. E. 1933.74. Table 66. U. S. Dept. of Agr. Yearbook 1937. 308. Table 421.

[b] Data beginning with 1929 are based on more complete returns than those for earlier years, and allowance should, therefore, be made for this when comparing production since 1929 with that of previous years.

[c] Farm butter data of 1919, 1924 and 1929 are census figures, production of farm butter in intervening years being estimated.

[d] Last year reported.

APPENDIX TABLE II. AVERAGE WHOLESALE[a] PRICES PER POUND AND SPREAD BETWEEN PRICES, 93-SCORE AND 90-SCORE BUTTER, CHICAGO, AND COMPARABLE SPREAD BETWEEN CORRESPONDING PRICES, NEW YORK CITY,[b] 1927-36.

Year	Price in cents per pound		Spread in cents per lb. Chicago	Comparable spread in cents per lb., N.Y.City
	93-score Chicago	90-score Chicago		
1927	46.78c	43.84c	2.94c	3.11c
28	46.81	44.60	2.21	2.45
29	44.50	42.29	2.21	2.29
30	36.03	33.71	2.32	2.41
31	27.80	25.56	2.24	2.45
32	20.82	19.14	1.68	1.89
33	21.52	19.67	1.85	1.85
34	25.49	23.80	1.69	1.54
35	29.43	28.02	1.41	1.45
36	32.60	31.46	1.20	1.36

[a] Principally sales by first hand receivers to jobbers, chain-stores and other large distributors, in less than carload lots.

[b] Bureau of Agr. Econ. Division of Dairy and Poultry Products. Dairy and Poultry Market Statistics. Annual Summaries (Mimeo.)

APPENDIX TABLE III. CENTRALIZERS AND LARGE DAIRY CORPORATIONS: NUMBER OF CREAMERIES AND VOLUME OF BUTTER DISTRIBUTED,[a] 1918-37.

Year	Beatrice		Blue Valley		Fairmont		National D'yProd.	Borden
	No. Cream-eries	Lbs. butter sold (000)	No. Cream-eries	Lbs. butter sold (000)	No. Cream-eries	Lbs. butter sold (000)	Lbs.b'ter sold(000)	Lbs.b'ter sold(000)
1918		61,335		26,484				
1919		63,113						
1920	16[b]	54,332	20[e]					
1921		64,676						
1922		68,512						
1923		73,083						
1924				40,000				
1925		75,229	22[f]			45,537	19,795	
1926					16[f]	56,209	21,897	
1927		58,530				55,863	22,509	
1928	22[c]	65,194				60,000	40,547	
1929	26[c]	95,837					82.607	
1930	36[c](av.)	97,273				60,000	98,388	
1931	41[c]					70,000		
1932								
1933			23[g]	30-40,000			100,000	
1934						70,000	92,323	88,663
1935		95,109						
1936	36[d]				31[c]			

[a] Volume data from following sources (for page numbers see List of References):

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1933—Agricultural Adjustment Administration. Record of Hearings on Proposed Butter Marketing Agreement. Docket No. **32**:157 ff. Aug. 1933.

National Dairy Products: 1925-30—Moody's Manual of Investments: Industrials. Annual.
1933—"Beatrice." Fortune. May, 1934.
1934—Federal Trade Commission. Agr. Income Inquiry. 1938.

Borden: 1934—Federal Trade Commission. Agr. Income Inquiry. 1938.

[b] Moody's Manual of Investments: Industrials. 1921.

[c] New York Stock Exchange. Listings. A-8795, A-8879, A-8967, A-9338, A-9473, A-9527, A-9593, A-9840. Data for 1929-31 are **average** number of creamery "units" (not plants, see supra, p. 339, Table 3) for each year.

[d] "Beatrice." Fortune. June, 1936.

[e] Author's estimate.

[f] Urner-Barry Company. Who's Who in the Butter Industry. Annual.

[g] Agricultural Adjustment Administration. Record of Hearings on Proposed Butter Marketing Agreement. Docket No. **32**:157 ff. August, 1933.

APPENDIX TABLE IV. CHAIN STORES: NUMBER OF STORES,[a] NUMBER OF CREAMERIES,[a] AND VOLUME OF BUTTER DISTRIBUTED, 1918-38.

	A & P Tea Co. (as of February 28)			Safeway (Av. for year)		First National (as of Mar. 30)		Kroger (as of Jan. 1)	Am. St.[g] (as of Jan. 1)
	No. stores	No. creameries	Lbs. butter sold (000)	No. stores	No. creameries	No. stores	No. creameries	No. stores	No. stores
1918									
1919	3800	0							1223
1920	4246	0	35,000[b]						1223
1921	4544	0	75,000[c]						1223
1922	5088	0						1125	1223
1923	5088	0						1413	1152
1924	9303	0						1874	1152
1925	11421	0						2127	1214
1926	14034	0	100,000[d]	673	0			2856	1792
1927	14811	0		840	0	1650	0	3369	1983
1928	15671	1		1191	0	1717	0	3749	2133
1929	15177	1		2340	2	2002	0	5260	2546
1930	15418	1		2675	2	2549	5	5575	2644
1931	15737	1		3264	4	2548	5	5165	2728
1932	15670	1	203,531[e]	3411	4	2546	5	4884	2806
1933	15427	1	183,000[f]	3306	4	2705	5	4737	2977
1934	15131	1		3228	4	2653	5	4400	2882
1935	15035	1	162,000[f]	3330	5	2623	5	4352	2859
1936	15000	1	149,929[f]	3370	6	2556	5	4250	2826
1937	14700	1		3327	6		5	4212	2816
1938	13300	1				2350	5	4108	2620

[a] Moody's Manual of Investments: Industrials. Annual. 1918-25. 1930-37.

[b] Great A. & P. Tea Company pamphlet. 1920

[c] Unidentified Newspaper Clipping of Feb. 1923 in A. & P. file, Corporations Records Room, Baker Library, Harvard University.

[d] N. Y. Prod. Rev. July 20, 1927.

[e] American Creamery and Poultry Prod. Rev. March 22, 1933.

[f] Personal correspondence with R. E. Eldred, A. & P. Butter Warehouse, Chicago.

[g] American Stores.

APPENDIX TABLE V. FARMERS' COOPERATIVE SALES AGENCIES: VOLUME OF BUTTER DISTRIBUTED, 1918-37 (000 OMITTED).[c]

Year	Land O'Lakes[a]	Challenge[a]	Iowa State Brand[b] (Year ending May 31)
1918		3295	
19		3582	
1920		4538	
21		6852	
22		9381	
23		12476	
24	32,842	15266	
25	79,107	18726	
26	79,567	25717	
27	84,257	28896	
28	86,649	28222	150
29	93,115	30429	4197
1930	100,993	33866	5460
31	98,215	36103	8022
32	98,138	33944	11820
33	98,392	32623	13009
34	85,018	30409	14040
35	79,276	30898	16178
36	74,043		16536
37			17740
38			19660

[a] Fetrow, Ward W. Cooperative Marketing of Farm Products. F. C. A. Coop. Division. Bul. 3. 1936. Data after 1935 brought up to date from other sources.

[b] Iowa State Brand Creameries, Inc. Eleventh Annual Report. May 31, 1938.

[c] Volume of other cooperatives: United Dairymen, 15,000,000 pounds (1933); Midwestern Producers', 24,000,000 pounds (1936); Dairy and Poultry Cooperative 25 to 40,000,000 (author's estimate); Interstate Associated Creameries, 4,000,000 pounds (1933).

APPENDIX TABLE VI. MEAT PACKERS: NUMBER OF PRODUCE HOUSES AND CREAMERIES; AND VOLUME OF BUTTER DISTRIBUTED,[a] 1918-37.

Year	Armour			Swift				Cudahy		Wilson	
	No. prod. houses[b]	No. creameries	Lbs. butter sold (000)	No. prod. houses[i]	No. ice cream plants	No. cream-eries	Lbs. butter sold (000)	No. cream-eries	Lbs. butter sold (000)	No. cream-eries	Lbs. butter sold (000)
1918		12[c]	51,016			38[c]	66,621	3[c]	16,760	0[c]	21,565
1925		16[d]									
1926				55		41[d]					
1927		27[d]		70							
1929			100,000+			76[h]	118,600[h]				
1930	59	27[d,g]		80	10[d]			11[e]		11 (est.)	
1932				100							
1933				114							
1934					11[d]						
1935			119,805	113			137,580	11[e]	25,000 (est.)		30,000 (est.)
1936	53									13[f]	
1937		24[d,g]			21[d]						

[a] Volume figures are from following sources:

1918—Federal Trade Commission. Milk and Milk Products. 1921

1929—Beatrice. Fortune. June 1936. Statement that Armour and Swift volume passed that of Beatrice (96,000,000 pounds in 1929) during 20's.

1933—Armour. Fortune. June, 1934.

1935—Federal Trade Commission. Agr. Income Inquiry. Part I. 1938. Cudahy and Wilson estimates based on tables 61 and 67.

[b] N. Y. Stock Exchange. Listings. A-9185.

[c] Federal Trade Commission. Report on the Meat Packing Industry. 4:153. Table 39.

[d] Urner-Barry Company. Who's Who in the Butter Industry (Annual).

[e] Cudahy Packing Company. Annual Report.

[f] Standard Statistics Co. Standard Corporation Records. 1937.

[g] Also 2 condenseries in 1930; 2 condenseries and 15-20 cheese factories in 1937.

[h] Sup. Ct. of D. of C. In Equity No. 37623. U. S. vs. Swift and Co. et al. Petitioning Defendants' Statement. 1930. Number of creameries on p. 479. On p. 316: Swift handled 5.59% of U. S. butter in 1929. Since this calculation included farm butter (cf. supra, p. 326, note 6), it amounted to 118.6 million pounds.

[i] Moody's Manuals of Industrials.

APPENDIX TABLE VII. GOVERNMENT PURCHASES OF BUTTER THROUGH VARIOUS AGENCIES, BY STORAGE YEARS, AUGUST, 1933-SEPTEMBER, 1938.

Storage year (May through April)	Government Purchases (000) Through			Total government purchases[d] (000)
	Land O'Lakes Creameries	Dairy Products Marketing Assn.[d]	Fed. Surplus Commod. Corp.[d]	
1933-34[a]	11,000	32,000	8,573	51,573[c]
1934-35			16,176	16,176
1935-36			8,680	8,680
1936-37			1,715	1,715
1937-38			9,825	9,825
1938-39[b]		99,000[e]	16,827[e]	115,827
Total	11,000	131,000	61,796	203,796

[a] Beginning August, 1933.

[b] Up to and including September, 1938.

[c] Black, John D. The Dairy Industry and the AAA. p. 357. Distribution according to agency is approximate, being based on data in round figures as given by Black on pp. 354-55.

[d] All data except for 1933-34 are as given by E. W. Gaumnitz, Chief of Dairy Section AAA. Letter to Author, October 4, 1938.

[e] The figures for D.P.M.A. do not include 10 million pounds which the Association bought and resold to the F.S.C.C. These 10 million pounds are included in the F.S.C.C. total above.